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ENCYCLOPÆDIA AMERICANA.

Linnæus. (See *Linné*.)

Linné, Charles, but more generally designated by his Latinized name, *Linnæus*, the most celebrated naturalist of his age, was a native of Sweden. He was the son of a clergyman, and was born May 13, old style, 1707, at Rœshult, in the province of Smaland. His father was fond of gardening, and his little domain was stocked with plants not commonly cultivated—a circumstance to which the prevailing taste of the son may be fairly attributed. He was sent to the grammar-school, and afterwards to the gymnasium of Wexio, to be educated for the ministry; but, as he disliked the studies of the school, and preferred to collect plants and catch butterflies, he remained behind his fellow-pupils in Latin and Greek, and the teachers declared to his father that he was only fit for a mechanic. The father sent him to a shoemaker; but the physician Rothmann, having discovered talents in the boy, induced his parents to let him study. As botany afforded him no prospect of a support, Linné was obliged to study medicine. In 1727, he entered at the university of Lund in Scania, whence he removed, the following year, to Upsal. During his early residence there, the narrowness of his father's circumstances exposed him to great difficulties, from which he was relieved by the patronage of Celsius, the theological professor, an eminent naturalist, who had become acquainted with him in the botanical garden at Upsal, and through whose recommendation he obtained some private pupils. He also formed a friendship with Artedi, a medical student like himself, devoted to the cultivation of natural history. He now, in his 24th year, conceived the idea of a new arrangement of plants, or the sexual system of botany, relative to which he wrote a memoir, which was shown to Rudbeck, the botanical professor, who was so struck with its ingenuity, that he received the author into his house, as tutor to his sons, and made him his assistant in the office of delivering lectures. Forty years before, Rudbeck had made a journey to Lapland, which excited the curiosity of the learned. A new journey was now concluded upon, and, in 1732, Linné was sent, by the academy of sciences at Upsal, to make a tour through Lapland, from which he returned towards the close of the year. Fifty Swedish dollars were thought sufficient by Linné to defray his expenses, and with this small sum he made a journey of more than 3500 miles, unaccompanied. In 1733, he visited the mining district around Fahlun, and gave lectures on mineralogy, having formed a system of that science, afterwards published in his *Systema Naturæ*. While he was thus adding to his reputation at Upsal, he became involved in a violent quarrel with the medical professor, Nicholas Rosen, who seems to have acted with a great deal of illiberality, and found means to prevent Linné from continuing his private lectures. He therefore engaged in a scientific tour through the province of Dalecarlia, and remained for some time at Fahlun, lecturing and practising medicine with considerable success. He again went to Lapland on a mineralogical tour, with seven young men; and, in 1735, published a complete *Flora* of this country—a classical work. In the same year, he went to the university of Harderwyck, in Holland, and took the degree of M. D. He then visited Leyden, where the first sketch of his *Systema Natu-*

ræ was printed in the form of tables, filling 12 folio pages. He became acquainted with John Frederic Gronovius, Boerhaave, and John Burman of Amsterdam; and he then published a work, entitled *Fundamenta Botanica*, exhibiting the basis of his botanical system. Mr. Clifford, a rich merchant of Amsterdam, made him superintendent of his garden at Hartecamp, near Haerlem, rich in curious exotics, of which Linné drew up a systematic catalogue. In 1736, he made a visit to England. He returned to Holland with many new plants for Mr. Clifford's garden, his description of which, entitled *Hortus Cliffortianus*, with 37 plates, was now published in a most splendid form. He also published the first edition of his *Genera Plantarum*. In 1738, he made an excursion to Paris, and, towards the end of that year, returned to his native country, and settled as a physician at Stockholm. At first, he experienced neglect; but, through the influence of count Tessin, he was appointed physician to the navy, and had a salary for giving public lectures on botany in the summer, and on mineralogy in the winter. The establishment of the royal academy of Stockholm, of which he was one of the first members, contributed to the advancement of his reputation, by the opportunities which it afforded for the display of his abilities. In 1741, he succeeded Roberg in the professorship of medicine at Upsal, to which was added the superintendence of the botanic garden, to the new arrangement and augmentation of which he devoted much of his time and attention. In 1745, appeared his *Flora Suecica*, and the next year his catalogue of Swedish animals, entitled *Fauna Suecica*. He was elected to the post of secretary of the academy of sciences at Upsal. In 1746, an honorary medal of him was struck at the expense of some noblemen; and, in 1747, he was nominated royal archiater. Through his influence, many young naturalists were sent to explore various countries; and to his zeal in the cause of science we owe the discoveries in natural history made by Kalm, Osbeck, Hasselquist and Loefling. He was employed by the queen of Sweden to describe her museum at Drottningholm, when he made a new scientific arrangement of the shells contained in it. About 1751, he published his *Philosophia Botanica*, and, in 1753, his *Species Plantarum*, containing a description of every known plant, arranged according to the sexual system. This work of Linné, which Haller terms his *Maximum Opus et Æternum*, appeared originally in two volumes, 8vo.; but the edition published by Willdenow at Berlin, 1799—1810, is extended to ten volumes. In 1753, this great naturalist was created a knight of the polar star—an honor never before bestowed on a literary man. In 1761, he was elevated to the rank of nobility. Literary honors were also conferred on him by scientific societies in foreign countries. In 1768, he completed the plan of his *Systema Naturæ*, which, through successive editions, had been enlarged to three octavo volumes. Linné acquired a moderate degree of opulence, sufficient to enable him to purchase an estate and mansion at Hammarby, near Upsal, where he chiefly resided during the last 15 years of his life. There he had a museum of natural history, on which he gave lectures, and to which he was constantly making additions, from the contributions of travellers and men of science in various parts of the world. His health, during a great part of his life, enabled him to pursue his researches with vigor and activity; but in May, 1774, he had an apoplectic attack, which obliged him to relinquish the most laborious part of his professorial duties, and close his literary labors. A second attack occurred in 1776, and he afterwards experienced a third; but his death did not take place till January 11, 1778. Besides his works on natural history, he published a classified *Materia Medica*, and a systematic treatise on nosology, entitled *Genera Morborum*. Few men in the history of science have shown such boldness, zeal, activity and sagacity as Linné: natural science is under unspeakable obligations to him, though the different systems established by him may be superseded by more perfect ones. Charles XIV, king of Sweden, in 1819, ordered a monument to be erected to him in his native place. By his wife, the daughter of a physician at Fahlun, he had a son and four daughters. The former, *Charles von Linné, jun.* was joint-professor of botany, and afterwards professor of medicine at Upsal. He was well acquainted with science, but distinguished himself by no discoveries of importance. On his death, without issue, in 1783, the family became extinct. —*Elizabeth Christina von Linné*, one of the daughters of the great naturalist, studied botany, and became known by her discovery of the luminous property of the flower of the *tropæolum*, of which an account was communicated to the academy of Stockholm.

Linseed Oil. (See *Flax*.)

Lint, in surgery, is the scrapings of fine linen, used by surgeons in dressing wounds. It is made into various forms, which have different names, according to the difference of the figures. Lint, made up in an oval or orbicular form, is called a *pledgit;* if in a cylindrical form, or in shape of a date or olive stone, it is called a *dossil.* These different forms of lint are required for many purposes; as, 1. to stop blood in fresh wounds, by filling them up before the application of a bandage; though, if scraped lint be not at hand, a piece of fine linen may be torn into small rags, and applied in the same manner: in very large hemorrhages, the lint or rags should be first dipped in some styptic liquor, as alcohol, or oil of turpentine, or sprinkled with some styptic powder: 2. to agglutinate or heal wounds; to which end lint is very serviceable, if spread with some digestive ointment, balsam, or vulnerary liquor: 3. in drying up wounds and ulcers, and forwarding the formation of a cicatrix: 4. in keeping the lips of wounds at a proper distance, that they may not hastily unite before the bottom is well digested and healed: 5. they are highly necessary to preserve wounds from the injuries of the air.—Surgeons of former ages used compresses of sponge, wool, feathers, or cotton, linen being less plentiful than in later times; but lint is far preferable to all these, and is, at present, universally used.

Lintz, capital of Upper Austria, on the Danube, at the influx of the Traun, is well built, with a bridge 400 paces long, and has, exclusive of the garrison, a population of 18,700 inhabitants; houses, 1000. Here is the largest woollen manufactory in Austria, in which fine carpets are made. Much gunpowder is also manufactured here. In 1784, Lintz was made a bishop's see. In 1674, the lyceum was founded by Leopold, and, in 1824, institutions for the deaf and dumb, and one for the blind, were erected. The Northern Institute is a college for the Catholics of the north of Germany. Lon. 14° 16′ 45″ E.; lat. 48° 18′ 54″ N.

Linus; the name of a celebrated musician of antiquity, to whom Diodorus Siculus, quoting Dionysius of Mitylene, attributes the introduction of verse and music into Greece. He was a native of Chalcis, and to him are ascribed a poem on the exploits of Bacchus in India, a treatise on mythology, the addition of a string to the lyre then in use, and the invention of melody and rhythm. Suidas also joins in giving him credit for the last-mentioned improvements, and calls him the first lyric poet. A few fragments of poetry, under his name, are to be found in Stobæus.

Lion (*felis leo*). The lion, like all other cats, is armed, in each jaw, with six strong and exceedingly sharp cutting teeth, two formidable canine, and six others, occupying the usual place of the molars, but differing from these by terminating in sharp protuberances. Besides these, there is a small tooth, or tubercle, on each side of the upper jaw, immediately posterior to all the others. The tongue is covered with rough and elevated *papillæ*, with their points directed backwards. The claws, which are five in number on the fore feet, and four on the hinder, are of great length, extremely powerful, and much curved; like those of the other cats, they are retractile within a sheath enclosed in the skin covering the paws. The lion is distinguished from his kindred species by the uniformity of his color, which is pale tawny above, becoming somewhat lighter beneath, and never, except while very young, exhibiting any markings; and also by the long and flowing mane of the old male, which, covering the whole head, extends backwards over his shoulders. Notwithstanding the praises that have, from time immemorial, been bestowed on this animal, for grateful affection, dauntless courage, and merciful forbearance, he is nothing more, in moral and intellectual faculties, than a cat of immense size and strength, and endowed with all the guileful and treacherous qualities of that treacherous tribe. His dauntless courage is a mere consciousness of superiority over the animals by which he is surrounded, and wholly disappears in the neighborhood of man; his merciful forbearance is nothing more than that he never destroys more than satiates his hunger or revenge, and that, when under the dominion of man, he suffers his keeper to approach him without injury. The lion is only met with in the warmer regions of the old world, and more particularly of Africa, in whose vast forests and arid deserts he reigns supreme and uncontrolled. He is met with, but rarely, in parts of India, Arabia and Persia, but his range in these countries is becoming very limited. From Libya, whence the Romans obtained so many, he has almost disappeared; and in classic Greece, where, we are informed by Aristotle, he once occurred, none are to be found. In America, this species never occurred, its place being supplied by the puma. Naturalists have differed greatly as to the longevity of this animal. Buffon stated it to be from 20 to 22 years; but it far exceeds this, as the one in the Tower of London, which died in 1760, lived in captivity above 70 years; and another died in the same place, at the age of 63. The lioness brings forth from three to four at a birth. The cubs, when first born, are about the size of a small pug dog, and continue to suck the mother for about a year. At this time, their color is a mixture of reddish and gray, with a number of brown bands. The mane of the male begins to make its appearance when the animal is about three to three years and a half old. The male attains maturity in seven, and the female in six years. The strength of the lion is prodigious, a single stroke with his paw being sufficient to destroy most animals. The bone of the fore leg is remarkably fitted to sustain the great muscular strain so powerful an exertion occasions. Its texture is so compact, that it will strike fire with steel. The lurking-place of the lion is generally chosen near a spring, or by the side of a river, where he has an opportunity of surprising such animals as resort to the water to quench their thirst. Here he lies in wait, crouched in some thicket, till his prey approaches, and then, with a prodigious leap, seizes it at the first bound; if, however, unsuccessful in this, he immediately retires to wait another opportunity. In the night, more particularly, the lion prowls abroad in search of his prey, the conformation of his eyes being, like those of the common cat, well fitted for seeing in a dim light. The roar of the lion is loud and terrific, especially when heard in the solitary wilds he inhabits: this roar is his natural voice; for, when enraged, he utters a short and suddenly-repeated cry, whilst the roar is a prolonged effort, a kind of deep-toned grumbling, mixed with a sharp, vibrating noise. It has been usually stated, that the lion had constant and stated times for roaring, especially when in captivity; but this has been shown to be erroneous in some degree. It appears, however, that, in summer time, and especially before atmospheric changes, he uniformly commences about dawn; at no other time is there any regularity in his roar. When enraged, his cry is still more appalling than his roar; he then beats his sides with his tail, agitates his mane, moves the skin of his face and his shaggy eyebrows, thrusts out his tongue, and protrudes his dreadful claws. The lion requires about 15 pounds of raw flesh a day; he drinks often, lapping like a dog; but in this process his tongue is bent downward: his breath is very offensive, and the odor of his urine insupportable. There is some variation, in the lions of different countries in external appearance, though, in essential particulars, their habits are identical. The Asiatic variety seldom attains an equal size with the Cape lion; its color is a more uniform and pale yellow, and its mane fuller and more complete, and being, moreover, furnished with a peculiar appendage of long hairs, which, commencing beneath the neck, occupy the whole of the middle line of the body beneath. Even the Cape lion presents two varieties, known as the *pale* and the *black*, distinguished, as their appellations imply, by the lighter or darker color of their coats. The latter of these is the larger and more ferocious of the two. The Barbary lion has the same full mane as the Asiatic, but exceeds him in size. The number of lions, as has been observed, has greatly diminished, judging from the multitudes spoken of by ancient writers, and those carried to Rome. Thus Sylla the dictator exhibited, during his pretorship, 100 of these animals; and Pompey presented 600 in the circus. Lion-fights were common under the consulate, and during the empire. Adrian, it is said, often caused 100 to be destroyed at one exhibition; and Antoninus Pius and Marcus Aurelius were equally prodigal in gratifying the people. At the cape of Good Hope, lions are hunted, not only for the purpose of extermination, but also for their skins. In the day time, and in an open country, from 10 to 16 dogs will easily overcome a lion of the largest size; nor does there appear to be any necessity that the dogs should be very large; as he is less swift than these animals, they readily overtake him, on which the lion turns round, and waits for the attack, shaking his mane, and roaring in a short and sharp tone, or sits down on his haunches to face them. The dogs then surround him, and, simultaneously rushing upon him, subdue him by their united efforts, though not before he has destroyed several of them. But the mode of destroying them, usual among the Bushmen, is by shooting them, either with fire-arms or poisoned arrows. The inhabitants know that the lion generally kills and devours his prey at sunrise and sunset. On this account, therefore, when they intend to hunt them, they notice where the antelopes are feeding at daybreak: if they perceive that these animals are alarmed, they conclude that they have been attacked by a lion. Marking the spot whence the alarm took place, about mid-day, when the sun is very powerful, and the object of their attack asleep, they carefully examine the ground, and, if they find him, they lodge a bullet or poisoned arrow in him. Sometimes, however, he is fairly brought to bay in the day time, by the hunter, as the following account from Pringle testifies. After his retreat is found, "the approved plan is to torment him with dogs till he abandons his covert, and stands at bay in the open plain. The whole band of hunters then march forward together, and fire deliberately, one by one. If he does not speedily fall, but grows angry, and turns upon his enemies, they must then stand close in a circle, and turn their horses' rear outward, some holding them fast by the bridles, while the others kneel to take a steady aim at the lion as he approaches, sometimes up to the very horses' heels, crouching every now and then, as if to measure the distance and strength of his enemies. This is the moment to shoot him fairly in the forehead, or some other mortal part. If they continue to wound him ineffectually, till he becomes furious and desperate, or if the horses, startled by his terrific roar, grow frantic with terror, and burst loose, the business becomes rather serious, and may end in mischief, especially if all the party are not men of courage, coolness and experience." Very full accounts of the lion and his habits are to be found in the travels of Sparmann, Barlow, Levaillant, Burchell, &c., in Southern Africa, and also in the Library of Entertaining Knowledge, and the Tower Menagerie, from which the above account has been condensed.

Lion's Gulf. This is the proper spelling of the gulf generally called *Gulf of Lyons*. The name is derived from *lion*, on account of the fierceness of the gales, at some seasons, in this gulf. The proper mode of writing it in French is *Golfe du Lion*. (See *Lyons, Gulf of*.)

Lion's Share; the whole, or a disproportionate share of the advantages of a contract, claimed by one of the parties, and supported by the right of the strongest. The phrase is derived from a fable of Æsop.

Lipano, Countess of (Caroline Annunziada); the widow of Murat (q. v.), and the sister of Napoleon. She became grand-duchess of Berg, and queen of Naples. She was born March 26, 1782.

Lipari; a cluster of volcanic islands in the Mediterranean, which take their name from the principal one of the group, about 24 miles from the north coast of Sicily. Lon. 15° 12′ E.; lat. 38° 34′ E.; population, about 20,000. These islands were called, by the ancients, *Æoliæ*, *Vulcaniæ*, and *Insulæ Liparæorum*, and feigned to be the residence of Æolus and Vulcan. *Lipari*, the largest, is populous and well cultivated, producing great quantities of corn and fruit, especially figs and raisins; it likewise produces alum, sulphur, nitre and cinnabar. It is about 15 miles in circumference; the air is healthy, and the inhabitants industrious and good seamen. On the eastern coast is situated a town of the same name. In this island were formerly pits, which emitted fire and smoke, but have long ceased to do either. Population, 15,000; square miles, 100. The other islands are Stromboli, Panaria, Vulcano, Salini, Alicudi and Felicudi, with two or three smaller ones. The volcanic eruptions, formerly frequent in the island of Lipari, ceased in the sixth century, but the whole island is composed of pumice-stone, lava, volcanic glass, and black sand; and the warm baths, and heated vapors of the Stoves (excavations which emit hot, sulphureous exhalations), prove the activity of the subterranean fires. The celebrated crater of Vulcano was visited by general Cockburn in 1812 (Voyage to Cadiz); the volcano is probably only slumbering, and not extinct. Stromboli is at present the most remarkable of the islands; its fires are in unremitting activity, the eruptions taking place at regular intervals, varying from three to eight minutes. (See the works of Dolomieu, Spallanzani, Brydone, &c.)

Lipinski, Charles, one of the greatest violinists, was born in 1790, at Radeyn, Poland. His father gave him his first instruction in music. In 1810, he was appointed director of music at the German theatre in Lemberg, and gave up the violoncello, till then his chief instrument, and devoted himself more to the violin. In 1814, he was so attracted by Spohr's playing, that he resigned his place, in order to have leisure for practising that artist's manner. He remained in his native country until 1817, when he went to Italy to hear the celebrated Paganini. (q. v.) In Piacenza, he played with him in a concert. Since that time, he has travelled in Russia, Germany and France. His style inclines to the elevated.

Lipogrammatic Compositions; those in which certain letters are purposely left out. Thus Lope de Vega wrote a *novella* without *l* or *a*. Kotzebue wrote one without *r*. The word is derived from the Greek λειπειν (signifying *to omit*, and used in many compound words), and γραμμα (letter).

Lippe. The ancient principality of Lippe is, at present, divided between two reigning houses: 1. *Lippe-Detmold* contains about 490 square miles, with 71,200 inhabitants. Detmold, with 2700 inhabitants, is the capital. Public revenue, 490,000 guilders. The prince furnishes a contingent of 600 men to the German confederacy. The constitution granted by the mother of the present prince to the country is still suspended, because the nobility will not allow the peasants to be represented. 2. *Schauenburg-Lippe.* The dominions of the prince of Lippe-Bückeburg-Schauenburg contain 212 square miles, with 25,500 inhabitants; revenue, 215,000 guilders; contingent to the Germanic confederation, 240 men. Bückeburg, the capital, is on the river Au. In 1810, the prince abolished the last traces of bondage, and, Jan. 15, 1816, established a constitution.

Lippi. There were three Florentine artists of this name. Of these, the eldest, *Francesco Filippo*, born in 1421, and surnamed *the Old*, had taken the vows as a Carmelite monk, but afterwards abandoned the church, and underwent many vicissitudes of fortune. On one occasion, he fell into the hands of a Barbary corsair, who sold him to slavery in Africa. The successful exertion of his talents, upon the portrait of his purchaser, was rewarded by his restoration to liberty. On his return to Italy, he was received into the service of the grand-duke of Florence. His death took place in 1488; and, although he was then 67, it is said to have been the result of an intrigue with a female of a respectable family, poison being employed by her relatives for his destruction.—He left one son, *Filippo*, also a painter of considerable reputation, born in 1460. Many of his works are yet to be found in the city of which he was a native. He died in 1505.—*Lorenzo*, the third of the name, descended of the same family, united to considerable skill as a historical and portrait painter the arts of poetry and music. He was born in 1606, and is advantageously known as the author of a burlesque poem, entitled *Malmantile Racquistato.* Of this work there have been three editions; two printed at Florence, in 1688 and 1731, the other, in 1768, at Paris. It appeared originally under the fictitious name of *Zipoli.* His death took place in 1664.

Lipsius, Justus; an acute critic and erudite scholar of the sixteenth century, born at Overysche, in Brabant, a village situated between Brussels and Louvain, in October, 1547. Martinus Lipsius, the intimate friend of Erasmus, was his uncle. His genius developed itself very early, his memory being considered wonderful. Before he had completed his ninth year, he had written some miscellaneous poetry, much above mediocrity. He was instructed at Brussels, and, subsequently, in the colleges of Æth, Cologne and Louvain. He removed to Rome in his 20th year, and, having secured the patronage of cardinal Granvella, by dedicating to him his treatise *Variarum Lectionum*, was received into his household, in the nominal capacity of secretary. With this distinguished prelate he remained till 1569, sedulously consulting the treasures of the Vatican, and other principal libraries, especially employing himself in the collation of rare and ancient manuscripts. On his return to the Netherlands, after a short time spent at Louvain, he visited the capital of the German empire, and then accepted a professorship in the university of Jena. Here the fickleness of his disposition, and the vacillating state of his opinions respecting religious matters, which eventually fixed the imputation of imbecility on a character in other respects estimable, first became apparent. He renounced the Romish church, and became a Lutheran; but, quitting Jena, at length, with an avowed intention of spending the remainder of his life in retirement in his native country he repaired to Overysche, and, soon after, recanted his supposed errors, and became reconciled to the see of Rome. In 1577, however, he again removed to Leyden, when he embraced the doctrines of Calvin, and, during the 13 years which he spent in that university, gave to the world the most esteemed of his works. In 1590, he returned finally to Louvain, and once more became a Catholic, and that of the most bigoted description. Many tempting and honorable offers were made him by various potentates, to engage him in their service; but he refused them all; and, at length, died at Louvain, in the spring of 1606. Superstition led him, a short time before his death, to dedicate a silver pen, and his fur gown, to the virgin Mary. His principal works are the *Variæ Lectiones* above-mentioned; an excellent Commentary on the Works of Tacitus; treatises *De Constantia; De Militia Romana; De Amphitheatris; De Pronuntiatione recta Linguæ Latinæ; De Cruce;*

De una Religione; De Bibliothecis; Satira Menippæa; Saturnalia; and an Oration on the Death of the Duke of Saxony. The best edition of them is that printed at Antwerp, in 1637.

Liqueur (from the *French*); a palatable spirituous drink, composed of water, alcohol, sugar, and some aromatic infusion, extracted from fruits, seeds, &c. The great difference in the qualities of the different *liqueurs* is owing principally to a variation in the proportions of the sugar and alcohol. The French distinguish three qualities: the first are the *ratafias*, or simple *liqueurs*, in which the sugar, the alcohol and the aromatic substance are in small quantities: such are the anise-water (q. v.), *noyau*, the apricot, cherry, &c. ratafias. The second are the oils, or the fine *liqueurs*, with more saccharine and spirituous matter; as the *anisette*, *curaçao*, &c., which are those commonly found in the *cafés*. The third are the *creams*, or superfine *liqueurs*, such as *rosoglio*, *maraschino*, Dantzic water, &c. The same aromatic infusion may, therefore, give its name to *liqueurs* of different qualities, in which the materials are the same, but the proportions different: thus one proportion of ingredients gives *eau-de-noyau;* another, *crême-de-noyau*, &c.

Liquidambar Styraciflua, or Sweet Gum. This tree is widely diffused through the U. States, from lat. 43° to Florida, and along the shores of the gulf into the provinces of Mexico. The leaves, which somewhat resemble those of some maples, are very regularly five-lobed, and the lobes are serrated on the margin. The flowers are inconspicuous. The fruit consists of a sort of bur, supported on a long pedicle, and is somewhat similar to that of the button-wood, or plane-tree, but is much less even, on the surface. It is abundant every where throughout the Middle, Southern, and Western States, and sometimes has a trunk five feet in diameter, with a proportional summit. The usual diameter, however, is from one to three feet. The wood is compact, capable of receiving a fine polish, and has been used for articles of furniture; but, for this purpose, it is inferior to either the wild cherry or black walnut. It is, however, employed for lining mahogany, for bedsteads, and for a variety of purposes in the interior of houses, possessing great strength, but requiring protection from the weather. The bark, on being wounded, yields a small quantity of a fragrant resin. This tree is, however, inferior, in useful properties, to many others which inhabit our forests.

Liquorice (*glycyrhiza*); a genus of leguminous plants, containing eight species, one of which is a native of North America, and the others are confined to the northern and temperate parts of the eastern continent. They have pinnated leaves, and small, blue, violet, or white flowers, which are disposed in heads or spikes, and are remarkable for the sweetness of the roots. The common liquorice (*G. glabra*) grows wild in the south of Europe, and is cultivated in many places, even in England, for the sake of the root, which is much used in pharmacy, and forms a considerable article of commerce. More than 200 tons of the extract are manufactured annually in Spain, a considerable portion of which is sent to London, and employed in the brewing of porter. It is often administered medicinally, in coughs and pulmonary affections, and the aqueous infusion is exposed for sale in all the European cities, as a refreshing beverage. A deep, light and sandy soil is best adapted to its culture. The American species (*G. lepidota*) inhabits the plains of the Missouri, from St. Louis upwards, extending even to the borders of the Pacific, but is not found in the Atlantic states.

Liriodendron. (See *Tulip-Tree.*)

Lisbon (*Lisboa*), the chief city of Portugal, and the residence of the court, in the province of Estremadura, on the right bank of the Tagus, which is here a mile and a half in width, and not far from the mouth of the river, is built on three hills, in a romantic country, and exhibits a grand appearance from the harbor. Including the suburbs Junqueira and Alcantara, it is about five miles in length, and a mile and a half in breadth. It contains 40 parish churches, 75 convents, and 100 chapels, 44,000 houses, and, before 1807, had 300,000 inhabitants, but, at present, has not more than 200,000, among whom are many foreigners, Negroes, Mulattoes, Creoles, and 30,000 Galicians, who come from Spanish Galicia, and serve as porters and water carriers, and perform other menial occupations. The town is open, without walls or gates. The highest hill only has a castle, now in ruins; but the harbor is beautiful, capacious and safe, and is defended by four strong forts on the banks of the river (St. Juliana, St. Bugio, the tower of Belem, &c.). Many of the streets are very uneven, on account of the hilly situation of the city. The finest are on the banks of the river. There are no elegant private buildings.

The houses of the nobility are distinguished only by their size. The western part has been beautifully rebuilt since the dreadful earthquake (Nov. 1, 1755) which destroyed half of the city, with the loss of 30,000 lives,* the streets being straight, and regularly laid out, with fine houses and squares. The eastern part of the city, which was not affected by the earthquake, has preserved its gloomy aspect—crooked streets and old-fashioned houses, six and seven stories high. Lisbon was formerly known to be extremely filthy and unsafe; but, at present, regulations have been made to provide for the public security, and the streets are well lighted. Among the squares, the principal are the *Plaça do Commercio* and the *Rocio.* They are connected by handsome, wide, straight streets. The former, on which the royal palace, now in ruins, was situated, lies on the bank of the Tagus, at the landing-place of the harbor, is an oblong square, of 615 paces in length and 550 in breadth, and is surrounded, on three sides, with fine buildings (the fourth is open towards the river). In the centre there is a bronze statue of king Joseph I. The Rocio, where the *autos da fé* were formerly exhibited, is a regular oblong, 1800 feet in length and 1400 in width, with the new palace of the inquisition on one side. In this square 10 streets meet. Among the churches, the new church is the finest, and is the most magnificent building erected since the earthquake. The patriarchal church, on an elevated situation, which affords a beautiful view, is magnificent in its interior, and contains rich treasures and many curiosities. The patriarch, the head of the Portuguese church, has a large annual income. The aqueduct, about seven miles in length, is a remarkable construction. The centre is so high, that a ship of the line might pass under it. The water is carried over the valley of Alcantara, on 35 marble arches. It withstood the force of the earthquake, although the keystones sunk a few inches. The St. Joseph's hospital, where 16,000 sick, and the foundling hospital, where 1600 children, are annually received, deserve to be particularly mentioned. Among the literary institutions are the royal academy of sciences, the college of nobles, the marine academy, with other seminaries, a botanical garden, three observatories, the royal cabinet of natural curiosities, and several public libraries, among which is the royal library, containing 80,000 volumes. Lisbon is the seat of the supreme authorities, and of the patriarch of Portugal, with a numerous clergy. The inhabitants have but few manufactories: there are not even mechanics enough to supply the demands of the city. But Lisbon is the centre of Portuguese commerce, which extends to most of the countries of Europe, to the U. States, and to the Portuguese possessions in other parts of the world. There are about 240 Portuguese and 130 foreign (principally English) mercantile houses. From 1700 to 1800 vessels arrive annually at the port (Junqueira). The beautiful environs of the town are embellished by a great number (6—7000) country seats (*quintas*). In the vicinity are Belem and the castles Ramalhao and Quelus.

Lisle, or Lille (Flemish, *Ryssel*); a large and strong city of France, formerly the capital of French Flanders, and now of the department of the North, situated on the Deule, in a dead flat. The Deule is navigable, and is divided into several branches, part of which supply the moats or great ditches of the citadel and town. The form of Lisle is an irregular oval; its length, from north-west to south-east, is nearly two miles; its breadth, about three quarters; its circumference, between four and five, exclusive of the earthen ramparts that surround the town, and which are, in their turn, surrounded by a moat. Lisle presents an imposing appearance, from its extent, its fortifications, its canals, its squares, and its public buildings. Few cities of France can vie with it in the straightness and width of its streets, the regularity of its buildings, and its general air of neatness. Several convents have survived the revolution; the hospitals are five, one very large. Lisle is a fortress of the first rank. Its citadel, the masterpiece of Vauban, is the first in Europe after that of Turin. It is a mile in circuit, and is surrounded by a double moat. The trade of Lisle is extensive. Its manufactures are of camlets, serges, and other woollen stuffs, cotton, calico, linen, silk, velvet, lace, carpets, soap, starch, tobacco, leather, glass and earthenware. The origin of this town is ascribed by tradition to Julius Cæsar. Louis XIV took it from the Spaniards in 1667. It surrendered, in 1708, to the duke of Marlborough and prince Eugene. At the peace of Utrecht, it was restored to France. In 1792, it was bombarded by the Austrians, who were obliged to retire, with the loss of 20,000 men. In 1815, Louis XVIII spent one day here, before leaving France. Population, 69,860 ; 18 miles east of Tournay; lon. 3° 4′ E.; lat. 50° 37′ 50″ N.

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* The city then contained about 150,000 inhabitants. The shock was instantly followed by the fall of every church and convent, almost all the large public buildings, and more than one fourth of the houses. In about two hours after the shock, fires broke out in different quarters, and raged with such violence, for the space of nearly three days, that the city was completely desolated. The earthquake happened on a holyday, when the churches and convents were full of people, very few of whom escaped

List ; the enclosed ground wherein knights held their justs and tournaments; so called because encircled with barriers as with a list. Some were double, one for each cavalier, so that they could not approach nearer than a spear's length. Hence *to enter the lists* is to engage in contest.

Listel ; a small square moulding, serving to crown or accompany a larger, and to separate the flutings in columns.

L'Istesso Tempo (*Italian*) ; a phrase implying that the movement before which it is placed is to be played in the same time as the previous movement.

Litany (from the Greek λιτανεία, supplication, prayer); a form of prayer or song, used on occasions of public calamity, first introduced, according to Zonaras and Nicephorus, by Proclus, about the year 446, at Constantinople, in the reign of Theodosius; according to Paulus Diaconus, under Justinian, at Antioch, in consequence of the following circumstance: An earthquake, says the legend, having driven the people into the fields, a boy was suddenly taken up into the air in their presence; but was again let down unhurt, on the people crying out *Kyrie eleeson!* The boy related that he had heard the songs of the angels, "Holy God! Holy and Mighty, Holy and Immortal! have mercy upon us!" and this gave rise to the litany. This kind of common prayer was, perhaps, not unusual among the Jews, and the 136th Psalm seems to have been adapted to this purpose. Litanies afterwards became very common, and every saint of the Roman calendar has his litany. It must be owned, that some of these are very unmeaning, enumerating all the names and miracles attributed to the saint, and, in this respect, not unlike those prayers of the Romans, which consisted merely of a catalogue of the names of the deity addressed, against which St. Paul gives a particular warning. Litanies are found in the old hymn-books of the Lutherans, but are no longer used by German Protestants. The Catholic litanies are distinguished into the greater and less. The latter is said to have been composed by bishop Mamertus, of Vienne (in France), in 446, when that place was visited by repeated calamities; the former by Gregory the Great, during an inundation of the Tiber, and a raging plague. This consisted of a song of seven choirs (hence *septiformis*), of clergy, monks, nuns, boys, girls, Roman citizens, and widows and married women. The litany probably consisted, at first, of the words *kyrie eleeson*, but was gradually enlarged. The litany was annually sung on the *dies rogationum*. At a later period, the litany was not only addressed to the Holy Trinity, but also, as we have said, to the saints, and sung in processions. This latter kind of litany of course was omitted by the Protestants. The usual answer of the people is, *Ora pro nobis* (pray for us), if the litany is directed to the Virgin or a saint; or *Libera nos* (deliver us), if it is addressed to the Deity. Indecent parodies have often been made on litanies, and sung in connexion with other profane songs. In early times, instances occur of this being done, even by monks. (See the note to the article *Fools, Feast of.*) The following parody is taken from the Cavalier's Letanie (1647):

From too much keaping an evil decorum,
From the manyfold treasons *parliamentorum,*
From Oliver Cromwell, *dux omnium malorum,*
Libera nos.

See the *Sacræ Litaniæ variæ* (Antwerp, 1606), and Bingham's *Origines Ecclesiasticæ*, for a great variety of litanies.—That this simple form of prayer and response has, at times, been of great advantage to the people cannot be denied; and, because many litanies are poor, all ought not to be condemned. (See *Liturgy.*)

Litchfield ; a post-town, and capital of Litchfield county, Connecticut; 30 miles west of Hartford, 31 north-north-west of New Haven, 329 from Washington; lon. 73° 37′ W.; lat. 41° 50′ N.; population, in 1820, 4610 (for the population in 1830, see *United States*) ; organized as a town in 1721, and contains four large territorial parishes. The principal village is delightfully situated on an elevated plain, affording extensive and beautiful prospects. It was made a borough in 1818, and contains a court-house, a jail, a female academy, a law school, a printing-office, a bank, and two houses of public worship,—one for Congregationalists, and one for Episcopalians,—and has some trade. In the township, there are nine houses of public worship,—four for Congregationalists, four for Episcopalians, and one for Baptists. It is a good agricultural town, and contains numerous mills and manufacturing establishments, cotton manufactories, iron works, &c. Mount Tom, on the western border of the township, is 700 feet high. There are four ponds in this township, the largest of which comprises 900 acres. There is a medicinal spring within half a mile of the court-house. The law school in this town is a private institution, established in 1782, by judge Reeve. In 1798, judge Gould was associated with him. Since 1820, judge Gould has lectured alone. The students, however, are weekly examined by another gentleman. The number of students, from 1798 to 1827, both inclusive, was 730. The number has been somewhat reduced, by the establishment of another school in connexion with Yale college. The students in this seminary study the law by titles, in the order in which the lectures are given. The mode of instruction is by lecturing on the several titles of the law in an established order. The course of lectures occupies about 14 or 15 months. One lecture is given every day. There are two vacations of four weeks each ; one in May, the other in October. The price of tuition is at the rate of $100 a year.

Lit de Justice was formerly a solemn proceeding in France, in which the king, with the princes of the blood royal, the peers, and the officers of the crown, state and court, proceeded to the parliament, and there, sitting upon the throne (which, in the old French language, was called *lit*, because it consisted of an under cushion, a cushion for the back, and two under the elbows), caused those commands and orders, which the parliament did not approve, to be registered in his presence. The parliament had the right of remonstrating, in behalf of the nation, against the royal commands and edicts. If the king, however, did not choose to recede from his measures, he first issued a written command (*lettres de jussion*) to the parliament ; and if this was not obeyed, he held the *lit de justice*. The parliament was then, indeed, obliged to submit, but it afterwards commonly made a protest against the proceeding. Louis XV held such a *lit de justice*, in 1763, in order to introduce certain imposts, but, on account of the firm resistance of the parliaments, he was finally obliged to yield. The last *lits de justice* were held by Louis XVI, in 1787 and 1788.

Literary History is the science whose object is to represent the developement or the successive changes of human civilization, as far as these are manifested in writings, as the object of *political history* is to show the same, manifested in the various political establishments and changes. In a more limited sense, literary history treats of learned writings, their contents, fate, modifications, translations, &c. (which is *bibliography*, q. v.), of the lives and characters of their authors, the circumstances under which they wrote, &c. (which constitutes *literary biography*). The latter has also been called *external literary history*, the former *internal literary history*, because it aims to show, in a connected view, the developement of sciences. From its nature, it is obvious that literary history could not fairly begin until mankind had acquired extensive knowledge of what has been done and written, which required the preparatory study of centuries, as well as a civilized intercourse among the various nations. This science is, indeed, of comparatively recent date, and we have by no means, even yet, a general literary history. What we have is mostly confined to Europe ; at least, we are yet too little acquainted with many parts and periods of the literary history of the East, which has several times given an impulse to the western world, to authorize us to call what has hitherto been done a general literary history. The branch which relates to Greece and Rome must remain of surpassing importance. The ancients did not treat literary history as a distinct department of history. The literature of the Greeks, and, though not in the same degree, that of the Romans, were so intimately connected with their religion and politics, that a separation of literary from general history could not easily take place , besides, the materials were not sufficient to claim a separate consideration. Hence the classics contain only scattered notices and detached materials for a literary history, partly in biographies of poets, philosophers, orators, grammarians, &c. ; partly in criticisms and extracts from their writings. Such notices we find in the works of M. Terentius Varro, Cicero, Pliny, Quinctilian, Aulus Gellius, Dionysius of Halicarnassus, Pausanias, Athenæus, and the biographers Plutarch, Suetonius, Diogenes Laertius, &c. Suidas and Photius likewise contribute names and titles. The middle ages contribute only detached facts to the history of their literature, partly in chronicles, partly in the confidential communications of poets and other authors, respecting their own lives. The first rude attempt at a compilation of general literary notices, yet without systematical order, was made by Polydore Virgil of Urbino in his work

De Inventoribus Rerum, which first appeared in print in 1499. The true father of literary history is the famous Conrad Gesner, whose *Bibliotheca Universalis* contains stores of knowledge not yet exhausted. In his 25th year, he began to execute his grand plan of a general work on literature, and, in three years, his materials were so far prepared, that they could be arranged for printing. According to his plan, the work was to be divided into three parts—an alphabetical dictionary of authors, a general systematic view of literature, which even cites single dissertations and passages, and an alphabetical index of matters and subjects treated. (See Ebert's *Bibliog. Lex.*, article *Gesner.*) The first edition of the first division appeared in 1545.* Peter Lambeck gave instruction in literary history at the gymnasium of Hamburg, in 1656, on the plan of Gesner and Virgil, and published, in 1659, outlines, as a text-book for his lectures, the title of which is *Prodromus Historiæ Literariæ.* Daniel George Morhof's *Polyhistor Literarius, Philosophicus et Practicus*, the first edition of which appeared in 1688, contributed to promote the study of literary history. Since the beginning of the eighteenth century, literary history has been a favorite study of the learned, and has been taught in the universities, and in higher schools, at least in Germany. To these lectures we owe several Introductions, General Views, and Systems of literary history. We mention, in chronological succession, Burkhard Gotthelf Struvius, professor at Jena; Matthew Lobetanz, professor at Greifswald; N. H. Gundling, professor in Halle; Gottlieb Stoll, professor in Jena; G. G. Zeltner, professor in Altorf; C. C. Neufeld, professor in Königsberg; F. G. Bierling, professor in Rinteln; and others. Reimmann must also be mentioned on account of his Introduction to *Historia Literaria* (1708), and his *Idea Systematis Antiquitatis Literariæ.* Still more important was Chr. Aug. Heumann's *Conspectus Republicæ Literariæ*, a work much superior to any that had preceded it, in arrangement, acute criticism and richness of materials. John Andrew Fabricius's Sketch of a General History of Literature (1752) is a comprehensive work, and unites the synthetic and analytic method. A. Y. Goguet was the first to introduce a more philosophical treatment of literary history; and the Italian Denina rivals him in brilliancy of manner, without equalling him in thoroughness and originality of views or in judgment. It began to be more and more clearly felt, that literary history, though an independent branch of history, would remain a mere list of names, titles, and dates, if it were not treated with constant reference to the state of religion, politics, morals, and the arts. Attempts have been made to treat it as a part of the general history of civilization by Iselin, Ferguson, Home, and particularly by Herder. In recent times, the Germans have taken the lead in this science, both in extent of knowledge and comprehensiveness of views. J. G. Eichhorn's and L. Wachler's work is of high value, as are also those of S. G. Wald, J. G. Meusel and Fr. Schlegel. It would exceed our limits were we to mention here the different productions upon the literary history of single nations and particular periods. A work on an extensive plan, though not of a general nature, is the great enterprise of the literary society of Göttingen—History of Arts and Sciences in Europe, since the Restoration of the same, until the End of the Eighteenth Century. — Literary history is naturally divided into ancient, middle and modern. The ancient terminates with the retirement of science into the convents, in the sixth century; the middle begins with the downfall of the great Roman empire (about 500 A. D.) and the commencement of literary civilization in the various European nations, without the support of ancient classical civilization (see Berrington's *Literary History of the Middle Ages*); and the last begins about 1450, when the study of the classics was renewed, and knowledge revived in Europe.

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* Lord Bacon, in his Advancement of Learning (*De Aug. Sci.* ii. 5), seems to have been the first (1605) to have traced out the objects and extent of a general literary history (*Historia Literarum, Historia Literaria*). "History," says he, "is natural, civil, ecclesiastical and literary; whereof the first I allow to be extant, the fourth I note as deficient. For no man hath propounded to himself the general state of learning to be described and represented from age to age, as many have done the works of nature, and the state civil and ecclesiastical, without which the history of the world seemeth to me to be as the statue of Polyphemus with his eye out, that part being wanting which doth show the spirit and life of the person: and yet I am not ignorant that in divers particular sciences, as of the jurisconsults, the mathematicians, the rhetoricians, the philosophers, there are set down some small memorials of the schools, authors and books; and so likewise some barren relations touching the invention of arts or usages. But a just story of learning, containing the antiquities and originals of knowledges, and their sects, their inventions, their traditions, their divers administrations and managings, their flourishings, their oppositions, decays, depressions, oblivions, removes, with the causes and occasions of them, and all other events concerning learning, throughout the ages of the world, I may truly affirm to be wanting. The use and end of which work I do not so much design for curiosity or satisfaction of those that are lovers of learning, but chiefly for a more serious and grave purpose, which is, that it will make learned men wise in the use and administration of learning."

Literary Property. In the whole compass and variety of the products of human labor, no one thing is more exclusively such than intellectual works. In the fabrication and production of almost all other subjects of value and property, the materials are supplied, directly or indirectly, by the earth or the water; and man only coöperates with nature in furnishing the article. But a piece of music, a painting, a poem, an oration, a history, or a treatise of any description, is the offspring of the unaided labor of the mind. It is supplied from abroad, only with the canvass, paper, parchment, or whatever other substance is used for recording the work, and affording the evidence of its accomplishment, but which is no more a part of the thing produced, than a deed, conveying an estate, is a part of the thing conveyed. But, though the right to the products of intellectual labor is thus peculiarly positive and absolute, it is among the latest rights of property recognised in a community, since the subject of it, the product itself, is only the result of an advanced state of civilization. Another reason of its not attracting a more early attention, is its abstract, incorporeal nature, and also, in some cases, the difficulty of defining and identifying it, and deciding what is an infringement of this right of property; and again, in some countries, speaking the same language as those bordering upon them, the great difficulty of protecting this kind of property from infringement, though no doubt arises as to the identification of the thing claimed, or in determining what shall be considered to be an infringement. The question whether an author has, of common right, and independently of any special statute in his favor, a property in the products of the labor of his mind, as unquestionable and absolute as any other producer has in those of the labor of the hands, was very elaborately discussed in the court of king's bench, and in the house of lords, in England, in the time of lord Mansfield, in the celebrated cases of Millar against Taylor, reported in the 4th volume of Burrow's Reports, in relation to the copyright of Thomson's Seasons; and Donaldson against Becket, reported in the same volume. The first of these cases came before the court in 1769. In 1709, the statute of 8 Anne, chapter 19, had been passed, giving to authors an exclusive copyright "for the term of 14 years, and no longer." Notwithstanding the limitation of the right to that term, by the statute, it had been held, in divers cases, subsequently decided, that the exclusive property of the author, or his representatives or assigns, continued after the expiration of the 14 years; and, accordingly, in 1739, lord chancellor Hardwicke granted an injunction against a person, other than the proprietors, printing Milton's Paradise Lost, the title to the copyright of which was derived to the proprietor, under an assignment by Milton, 72 years before. In the case relating to the copyright of Thomson's Seasons, three of the judges, namely, lord Mansfield and justices Aston and Willes, were of opinion, that the exclusive right of property continued after the expiration of 14 years from the first publication, as limited by the statute of Anne, and such was the decision of the court. Mr. Justice Yates dissented from that opinion. Five years afterwards, in 1774, the other case came before the house of lords, and, as is usual with that tribunal, the opinion of the judges of the king's bench, common pleas and exchequer, was taken. Lord Mansfield, being a member of the house of lords, did not give an opinion in answer to the questions propounded by the house, with the other judges, but acted and voted as a member of the body. Of the 11 judges who gave opinions, eight were of opinion that an author had of common right—that is, as by the common law, or without any statute to this effect—the exclusive privilege of publishing his own works; and three were of a contrary opinion. Seven, against four to the contrary, were of opinion, that, by publishing his work and vending copies, he did not abandon his exclusive property to the public, or, in other words, that, by making and selling one copy, he did not authorize all other persons to make, and use or sell as many copies as they might choose. This seems to be so plain a point, that, if four respectable judges had not been of a contrary opinion, one would be ready to say it admitted of no doubt. A case very analogous, but much stronger in favor of the author's right of property, is stated in the public journals (1831), as having recently been decided in France. An artist had sold a statue or picture, the production of his own chisel or pencil, and the question was made whether the purchaser had a right to publish engravings of this original. It was decided, that the artist alone, and not the purchaser, had, in such case, the exclusive right to make and publish engraved copies. But, on the other question, proposed by the house of lords, viz. whether the statute of Anne took away the author's exclusive right to his own property, after the expiration of 14 years, six of the judges were of opinion in the affirmative, so that the whole 12 judges were equally divided upon this question, lord Mansfield being, upon this and the two other questions, in favor of the author's right. But the house of lords decided that the author had no exclusive right after the expiration of the period limited in the statute, though the reasons given on that side, by the judges who supported it, are very unsatisfactory; and it is not easy to divine the grounds of the decision. But it has been acquiesced in as law from that time, both in England and the U. States. Thus, while the poverty of authors and scholars—the great leaders and champions of civilization and intellectual advancement—has been proverbial all the world over, the government has interposed, or is construed to have interposed, with its mighty arm, not for their protection and reward, but to despoil them of their property, the fruits of their own labor, and sequestrate it for the public use. If a man cultivates the ground, or fabricates goods, the fruits of his labor go to him and his heirs or assigns, absolutely, forever; but if he spends his life upon a poem or musical composition, he only has a lease of it for 14 years, according to the statute of Anne, when it is to be forfeited to the public. This doctrine displays, in striking contrast, the rewards bestowed, and the forfeitures enacted, in reference to different species of glory and public service. While a military hero is rewarded with a grant of lands and a title of honor, to himself and his heirs *ad infinitum*, a man of equal genius, who, by his labors, instructs and delights mankind, and sheds a lasting glory upon the country of which he is a citizen, is despoiled of the fruits of his own labors. The injustice of such a doctrine is so obvious, that its legality, though sanctioned by an acquiescence of half a century, may well be questioned. However this may be, legislatures have begun to mitigate the forfeitures heretofore inflicted upon literary eminence, by extending the time for which an author may enjoy the fruits of his own talents and industry. By a law passed in the 54th year of George the Third, chapter 156, an author is entitled to an exclusive copyright in his work for 28 years, and, if he is living at the end of that period, it is continued during his life. This act is entitled to the commendation of being less unjust than that of Anne. On the continent of Europe, the laws are much more favorable, or, rather, much less unfavorable, to authors. In France, they are entitled to an exclusive copyright during their lives, and their heirs or assigns for 20 years afterwards. In many of the German states, the right is perpetual, but it is subject to this disadvantage, that it extends only to the state in which it is granted, and the work may be pirated in the others with impunity. This can be avoided only by procuring a copyright in the different German states, which is attended with much difficulty and expense. The defect of the laws of these German states on this subject, therefore, is not in confiscating the author's property, or refusing to recognise his right to it, but in burthening him with heavy expenses in securing its protection. In Russia, the period of the copyright is the same as in France, and it is not liable to be seized and sold for the payment of the author's debts. In the U. States, the constitution provides, that congress may secure, "for limited times, to authors, &c., the exclusive right to their respective writings," &c. Under this provision, a law was passed, in 1790, giving to authors, being citizens of the U. States, or being resident therein, the sole right of printing and vending their works for the term of 14 years from the time of recording the title in the clerk's office; and, if living at the expiration of that period, and then citizens or resident as above, they could have a renewal of the exclusive right for 14 years longer, on filing a copy of the title again in the clerk's office. This law also required, that, at the commencement of each term, the author should publish the clerk's certificate in some newspaper for four weeks. It also required that a copy should be deposited in the office of the secretary of state. A more liberal, or, rather, less illiberal, law was passed on this subject in 1831. By this act, the exclusive right is extended to 28 years, with a right of renewal for his life, if the author is living at the expiration of the first copyright. It dispenses with the publication of the clerk's certificate in a newspaper—a very useless provision; for, if the work itself gives notice that the copyright is secured, a person who pirates it can have no pretence for alleging ignorance of the fact.

The act, also, though it requires that the author shall supply a copy for the office of the secretary of state, excuses him from the trouble of depositing it there, requiring him only to leave it in the office of the clerk of the district court. (See *Copyright.*)

LITERATURE, according to the English dictionaries, means *learning*. In general use, however, this word, in English, commonly signifies what in other countries would be called *elegant literature*, excluding works of abstract science and mere erudition. The meaning of the word, in English, however, is vague. In German and French, the word means, distinctly, the whole which has been written. Hence the phrase "literature of the middle age," or "medical literature," means the aggregate of works written during the middle ages, or on medicine, &c. *Literary* is applied to all those branches of reading which come within the scope of a general reader; the phrase "literary gentleman" corresponds pretty nearly to the French *homme de lettres*. *Literary gazette* is a journal which treats of works interesting to a general reader. In literary history, the word has a more extensive meaning. (See *Literary History*.)

LITHIA; the name applied by Arfwedson to an alkali discovered by him in analyzing the petalite. The name was derived from the Greek *λίθειος* (stony), in allusion to the existence of the earth in a stony mineral. Lithia has since been detected in spodumene, and several kinds of mica. The best process for procuring it is the following: One part of petalite or spodumene, in fine powder, is mixed intimately with two parts of fluor-spar, and the mixture is heated with three or four times its weight of sulphuric acid, as long as any acid vapors are disengaged. The silica of the mineral is attacked by hydrofluoric acid, and dissipated in the form of fluosilicic acid gas, while the alumina and lithia unite with sulphuric acid. After dissolving these salts in water, the solution is boiled with pure ammonia to precipitate the alumina; is filtered, evaporated to dryness, and then heated to redness to expel the sulphate of ammonia. The residue is pure sulphate of lithia, which is dissolved in water and decomposed by acetate of barytes; and the acetate of lithia, being heated to redness, is converted into the carbonate of lithia, and, finally, this is decomposed by lime or barytes, which affords pure lithia. Its color is white; it is not deliquescent, but absorbs carbonic acid from the air; very soluble in water; acrid, caustic, and acts on colors like the other alkalies: heated with platina, it acts on the metal. It combines with the different acids, and forms salts with them, like potash and soda, though possessed of a higher neutralizing power than these alkalies. Its phosphate and carbonate are sparingly soluble; its chloride is deliquescent and soluble in alcohol, and this solution burns with a red flame. All its salts give a red color, when heated on a platinum wire before the blow-pipe. The muriate and nitrate are deliquescent. The metallic base of lithia was evolved by sir H. Davy, by galvanism; but it was too rapidly oxidized to be collected: the metal was, however, seen to be white like sodium, and burned with bright scintillations.

LITHIC ACID, in combination with potash, is obtained from human urinary calculi, by digesting them in caustic lixivium: the lithate of potash gives up the lithic acid, on being mingled with acetic acid. It has the form of white shining plates, which are denser than water; is without taste or smell, and dissolves in 1400 parts of boiling water. It reddens the infusion of litmus. The lithates are all tasteless, and very sparingly soluble in water. Lithic acid, by repeated distillations, is resolved into ammonia, nitrogen and prussic acid.

LITHOCHROMICS; the art of painting in oil upon stone, and of taking impressions on canvass. This process, which is designed to multiply the master-pieces of painting, was invented some years ago by Malapeau, in Paris, who received a patent for his invention, and has an establishment for lithochromic productions, which have been popular in Paris since 1823. This process is a substitute for the copying of portraits; it also serves as a cheap means of ornamenting walls. This art, however, is still in its infancy. The lithochromic paintings yet produced are less valuable than the poorest copies. A similar but much superior invention has been made by Sennefelder, which he calls *mosaic impression*.

LITHOGRAPHY (from *λίθος*, stone, and *γραφειν*, to write); the art invented by Aloys Sennefelder (q. v.), of taking impressions from drawings or writings on stone, without engraving. As the history of the invention of this art, and the principles on which it depends, are contained in the article *Sennefelder*, we shall confine ourselves, in this place, to an account of the process of lithographic printing, and of the materials used in it. Two substances are used for drawing upon stone—lithographic chalk and lithographic ink. The former is made of 1½ ounce of soap, 2 ounces of tallow, 1½ ounce of pure white wax, 1 ounce shell-lac, ¼ ounce lamp-black. Another receipt gives 2 ounces soap, 5 ounces wax, ½ ounce tallow, and 1 ounce lamp-black. The soap, after it has been scraped fine, is put in an iron or earthen vessel, over the fire, and, when it is melted, little pieces of wax and tallow are added; it must be stirred the whole time, and, when the heat is extreme, the contents of the vessel are to be lighted by a burning taper, the stirring being continued. After a short time, the flame is to be extinguished; and, while the mixture is boiling, the lamp-black is to be gradually added. When this is done, the mixture is taken from the fire, and poured out on an iron or stone plate, and may be made into any form desired. For lithographic ink, a great many different receipts have been given; one of the most approved of which is a composition made of equal parts of tallow, wax, shell-lac and common soap, with about one twentieth part of the whole of lamp-black. These materials are mixed in an iron vessel; the wax and tallow are first put in, and heated till they take fire, after which the other ingredients are successively added; the burning is allowed to continue until the composition is reduced about one third. All calcareous stones, being susceptible of taking in a greasy substance, and of imbibing water with facility, are suitable for lithographic printing, provided they are compact, capable of receiving a fine polish, and of a clear and uniform color; the more compact and uniform in color, the better. Those commonly used are a nearly pure carbonate of lime. Suitable stones are by no means scarce. The quarry from which the first lithographic stones were extracted, is still that which furnishes them in the greatest abundance, and of the largest dimensions. It is situated at Solenhofen, near Pappenheim, in Bavaria. No quarries hitherto known in France, afford stones equal to the German. Those found near Chateauroux are of a similar color to those of Solenhofen, and even harder, and of a finer grain; but they are full of spots of a softer nature, so that it is difficult to procure pieces of the necessary size. In England, a stone has been used which is found at Corston, near Bath. It is one of the white lias beds, but is inferior to the German in fineness of grain and closeness of texture. When proper stones cannot be obtained without difficulty or great expense, it is more advantageous to fabricate artificial slabs, to which a proper density and hardness may be given. An intelligent potter can easily imitate the density of natural stones. Slabs, used for this purpose, have been made of stucco, composed of lime and sand, and fastened with the caseous part of milk. Artificial slabs, however, have not been made so as to equal the real ones; and the royal institute of France have thought the subject of sufficient importance to offer a large prize for the best. The stones are polished by putting fine sand between two of them, and thus rubbing them against each other till the surface is smooth; then each separate stone is rubbed with water and pumice-stone. After the stone is thus prepared, it may be used for all kinds of writing and drawing, with the brush or pen, &c. But if it is to be prepared for chalk, it must have a rougher surface, and, after the application of the pumice-stone, it is to be covered with very fine sand, of a uniform size, and rubbed with another polished stone without water. This is turned round and round, till the necessary roughness is produced. Both kinds of plates must be carefully preserved against greasiness, such as they would receive from the touch of the hand, since all the greasy spots appear in the impression, the greasy printing ink remaining on them. If the drawing is to be prepared with ink, the stone is first covered with oil of turpentine or soap-water, to prevent the lines from spreading. Then the drawing may be made on the stone with a black lead pencil or with a red crayon; but the latter is preferable, because, when the ink comes to be applied, it is easier to discover how far the lines of the drawing are really covered with ink. After having dissolved the ink in rain or river water (the former ought to have stood some time), these pencil outlines are covered with ink. If the stroke is black, or, at least, dark brown, it may be inferred that the impression will succeed. But if light brown, and transparent, it will not give the impression. The ink may be laid on with the pen or brush. Goose quills, however, are not well suited for this purpose, particularly if the strokes are to be very fine; the pens are too quickly blunted; but steel pens are used to great advantage: these are made of watch springs. After the drawing, the plate is left several hours, and then put under the press. For drawing with chalk, it is necessary to apply the finest and softest tints first, and the strongest afterwards. If the proper effect cannot be given to the foreground by chalk only, a little ink is added with the brush or pen. If the drawing has very fine tints, it is necessary that the impression from the plate should be taken immediately, otherwise the oil will dry or evaporate, and the ink will not take effect on these parts. The oil varnish used must be of the best kind. Before the stone is covered with ink, it must first be dipped in nitric or sulphuric acid, diluted with water to such a degree, that only a slight effervescence is produced; the proportion of acid should be but little more than one per cent.; this will make the stone in the parts not covered by the drawing more readily imbibe the water. This process is called *etching* the drawing. After this, it is merely dipped in common water. Great care must be taken that the acid is not too strong, as it will then injure the fine strokes and tints. When the stone has imbibed sufficient water, a liquid mixture must be poured over it, consisting of one sixth linseed oil, two sixths oil of turpentine, and three sixths of pure water: this again must be wiped off clean, and the stone must be then covered with a solution of gum-arabic in water; this prevents the lines from spreading. Immediately after this process, it is inked. The printing-ink is applied by means of leather printers' balls, stuffed with hair, or by cylinders, which must be of various sizes. The first impressions are seldom perfect. After each impression, the stone is washed with water, and, from time to time, is sponged over with gum-water, which is prepared from one ounce of finely pounded gum-arabic, and half a pound of water. The ink which has settled on a spot that should be light, is either removed with a clean sponge, or by diluted acid, applied with a sponge, and the place is afterwards washed with pure water. The printing-ink is composed, like other printing-inks, of oil-varnish and fine lamp-black. To prepare the varnish, a vessel is about half filled with pure linseed oil, and heated till it takes fire from the flame of a piece of burning paper. It is allowed to burn till reduced to the proper density. To describe the press, a drawing would be necessary. Besides the mode of preparing the drawings above described, drawings are also cut into the stone, and from these impressions are taken. Engravings may also be multiplied by putting them wet on a stone, when they come from the copperplate press, and subjecting them to pressure, by which the ink is made to leave the paper and adhere to the stone. Although lithography is of great use, and excellent impressions are produced, particularly at Munich, it is yet very imperfect. In landscapes, the soft tints and the perspective cannot be properly given; the lines are not sufficiently delicate. The number of impressions which can be taken from a lithographic chalk drawing, will vary according to the fineness of the tints. A fine drawing will give 400 or 500; a strong one, 1000 or 1500. Ink drawings and writings give considerably more than copper-plates. The finest will yield 6000 or 8000, and strong lines and writings many more. Upwards of 80,000 impressions have been taken, at Munich, from one writing of a form for regimental returns. But it is probably susceptible of farther improvements. Stone paper, a substitute for stone plates, was invented by Sennefelder, in 1817. (See Sennefelder's *Vollständiges Lehrbuch der Steindruckerey*, Munich, 1818). Lithography is now very widely spread. In all parts of Germany, also in France, Russia, England and the U. States, there are lithographic printing establishments. The lithographic process is generally employed for printing music, and has given rise to lithochromics. (q. v.) The best lithographic establishments, at present, are at Munich (Bavaria) and Paris. The French are the most expert in the process of printing. Some beautiful lithographic prints have also been executed at Berlin.

Lithotomy is the name given to the operation for extracting the stone from the bladder. (See *Stone.*)

Lithotrity; a surgical operation, by which the stone in the bladder is crushed by an instrument invented and first applied by doctor Civiale, of Paris, in 1826. He has written on the subject.

Lithuania (in the language of the country, *Litwa;* in German, *Lithauen*); an extensive country, formerly an independent grand-duchy, containing 60,000 square miles, but in 1569 united to Poland. Since the dismemberment of that kingdom in 1773, 1793, and 1795, the greater portion of it has been united to Russia, and forms the governments of Mohilew, Witepsk, Minsk, Wilna and Grodno. The climate is temperate and healthy, and the face of the country nearly a level, interrupted only by a few insignificant hills. The soil is in some parts sandy; in others marshy, or covered with woods; but, wherever it is cultivated, very productive. The principal rivers are the Düna, or Dwina, the Dnieper, the Niemen, the Przypiec and Bug. There are also many lakes and morasses. Lithuania raises considerable numbers of cattle, and produces abundance of corn, flax, hemp, wood, honey, and wax. The mineral kingdom yields iron and turf. The forests are full of game; among the wild animals are the urus, lynx, elk, beaver, &c. Corn, wax, honey, wolf and bear skins, leather, wool, and small but good horses, are exported. The manufactures are iron, glass, leather, and there are numerous distilleries. The Lithuanians, who are of Lettish origin (see *Livonia*), were in the eleventh century tributary to Russia. They made themselves independent when Russia was divided by the troubles under the successors of Wladimir, and soon became formidable to their neighbors. Ringold, in 1235, bore the title of grand-duke, and, under his successors, the whole of Russian Lithuania was separated from Russia. Gedemin conquered Kiev; Wladislaus Yagello was baptized in 1386, and, by his marriage with the Polish queen Hedwig, united Lithuania and the conquered Russian provinces with Poland. A portion of Lithuania, 6675 square miles, with nearly 400,000 inhabitants, now forms part of Gumbinnen, in the province of East Prussia, and is fertile and well cultivated. (See *Russia*, and *Poland*.)

Litmus; a blue paste or pigment obtained from the lichen *parellus*. It is brought from Holland at a cheap rate, but is not much used in painting, for the least acid reddens it; but the color is again restored by the application of an alkali. On this account, it is a very valuable test to the chemist for detecting the presence both of an acid and alkali. It is employed also for staining marble, and by silk dyers for giving a gloss to more permanent colors. Considerable quantities of the lichen are collected in the northern parts of Great Britain.

Litre. (See *France*, division *Decimal Measure*.)

Litter; a sort of vehicular bed; a couch or chair wherein the Roman patricians were borne by their servants, particularly on solemn public occasions, such as triumphal pomps or religious ceremonies. These litters were mostly provided with an awning or canopy, to preserve their occupiers at once from the heat of the sun and from the general gaze.

Little Rock; the seat of government of Arkansas territory, which is sometimes called by the name of *Acropolis* or *Arcopolis*. It is a high bluff point on the south bank of the river Arkansas, and derives its name from the masses of stone about it. It is 300 miles from the mouth of the river by its course, and about half that distance in a direct line. The village of Acropolis was laid out in 1820, and is but small; 1237 miles west of Washington; lat. 34° 34′ N.; lon. 92° 10′ W.

Littleton, or **Lyttleton**, Thomas, a celebrated English judge and law authority, born at the beginning of the fifteenth century, at Frankley, having been educated at one of the universities, was removed to the Inner Temple, where he studied the law, and became very eminent in his profession. In 1455, he went the northern circuit as judge of assize, and was continued in the same post by Edward IV, who also, in 1466, appointed him one of the judges of the common pleas. In 1475, he was created a knight of the Bath, and continued to enjoy the esteem of his sovereign and the nation until his death, at an advanced age, in 1481. The memory of judge Littleton is preserved by his work on Tenures, which has passed through a very great number of editions, those from 1539 to 1639 alone amounting to twenty-four. This work is esteemed the principal authority for the law of real property in England, while the commentary of sir E. Coke is the repository of his learning on the subjects treated.

Littorale; an Italian word signifying the *sea coast*, applied particularly to the Hungarian province on the coast of the Adriatic, comprising the three towns Fiume, Buccari and Porto-Re, with their territories, on the northern coast of Dalmatia. It formerly belonged to the military district of Croatia. The emperor Joseph II annexed it to Hungary in 1776, and gave it a civil government for the encouragement of Hungarian commerce. The district had, in 1787, 19,928 inhabitants upon 140 square miles. From 1809 to 1814, it formed part of the Illyrian provinces of France. In 1814, it was restored to the Austrian empire, and, in 1822, was reunited with the provinces of the crown of Hungary. The seat of government is at Fiume. (q. v.)

Liturgia (Greek, λειτουργια); the office of the λειτουργοι. These were persons in Athens, of considerable estates, who were ordered by their own tribe, or by the whole people, to perform some public duty, or supply the commonwealth with necessaries at their own expense. This institution indicates the rudeness of an age in which political science had made but little progress. These λειτουργοι were of divers sorts, all elected out of 1200 of the richest citizens, who were appointed by the people to undertake, when required, all the burdensome and chargeable offices of the commonwealth, every tribe electing 120 out of their own body. These 1200 were divided into two parts, according to their wealth. Out of the wealthiest half, were appointed 300 of the richest citizens, who, upon all exigencies, were to furnish the commonwealth with necessary supplies of money, and, with the rest of the 1200, were to perform all extraordinary duties in turn. If any person, appointed to undergo one of the duties, could find another person more wealthy than himself, and free from all the duties, the informer was excused. This obnoxious institution was abolished on the proposition of Demosthenes. (See Wolf's *Prolegomena to Demosthenes*, Bőckh's *Political Economy of Athens*, and Potter's *Grecian Antiquities.*)—The word λειτουργιᾳ is the origin of the English word *liturgy* (q. v.), the sense having become contracted from public ministry, in general, to the ceremonies of religious worship.

Liturgy (Greek, λειτουργια, from λειτον, public, and ἐργον, work); a precomposed form of public worship. It is merely our intention here to mention some of the most important liturgies, without entering at all into the question of the primitive forms of worship in the Christian church. There are three liturgies used in the Greek church—those of Basil, of Chrysostom, and of the Presanctified. They are used in all the Greek churches subject to the patriarch of Constantinople; also in the countries originally converted by the Greeks, as Russia, Georgia, Mingrelia, and by the Melchite patriarchs of Alexandria, Antioch and Jerusalem. (King, *Rites of the Greek Church.*) There are various liturgical books in use in the Roman Catholic church, the greater part of which are common to all the members in communion with the church, while others are only permitted to be used in particular places, or by particular monasteries. The Breviary contains the matins, lauds, &c., with the variations made therein according to the several days, canonical hours, and the like. There are various breviaries appropriated only to certain places; as the Ambrosian breviary used in Milan, the Gallican, by the church of France, and those of different monastic orders; but the Roman breviary is general. It consists of the services of matins, lauds, prime, third, sixth, nones, vespers, complines, or the *post-communie*, that is, of the seven hours, on account of the saying of David, "Seven times a day do I praise thee." It is recited in Latin. The Missal, or volume employed in celebrating mass, contains the calendar, the general rubrics, or rites of the mass, and, besides such parts as are invariably the same, the *de tempore*, that is, the variable parts on Sundays and holydays that have proper masses; the *proprium sanctorum*, or the variable parts in the masses for the festivals of such saints as have proper masses; and *commune sanctorum*, or the variable parts on the feasts of those saints that have no proper mass. The canon of the mass was committed to writing about the middle of the fifth century. Gregory the Great made many additions to it. The Ceremonial contains the offices peculiar to the pope, treating of his election, consecration, benediction and coronation, the canonization of saints, the creation of cardinals, the vestments of the pope and cardinals when celebrating the divine offices, &c. The Pontificale describes the functions of the bishops of the Roman church, such as the conferring ecclesiastical orders, consecrating of churches, manner of excommunicating, absolving, &c. The Ritual treats of those functions which are to be performed by simple priests, or the inferior clergy, both in the public service of the church, and in the exercise of private pastoral duties. The ancient Gallican liturgy is that which was in use among the Gauls before the time of Pepin and Charlemagne, who introduced the Roman mode of celebrating divine worship. The Spanish liturgy, more commonly called the *Mozarabic liturgy*, is derived from that of Rome. The Ambrosian liturgy, used in the cathedral at Milan, derives its name from St. Ambrose, who made some changes in it. It does not differ from the Roman in doctrines, though it does in form. The whole of the Roman liturgy is in Latin. The Protestants all adopted their vernacular tongue in the celebration of divine service. In 1523, Luther drew up a liturgy, or form of prayer and administration of the sacraments, which, in many points, differed but little from the mass of the church of Rome (*Opera*, ii, 384). He did not, however, confine his followers to this form, and hence every country, in which Lutheranism prevails, has its own liturgy, agreeing with the others in the essentials, but differing in many things of an indifferent nature. The prayers are read or chanted by the minister at the altar, and the subject of the discourse is, in most cases, limited to the epistle or gospel of the day. A new liturgy for the principal divine service on Sundays, holydays, and the celebration of the holy communion, was published at Berlin, in 1822. This was designed primarily for the use of the royal and cathedral church in Berlin, but has been generally adopted in Prussia. Calvin prepared no liturgy, but his followers in Geneva, Holland, France, and other places, drew up forms of prayer, of which the Genevese and the French are the most important. The Genevese liturgy contains the prayer with which divine service begins, a confession of sins, public prayers for every day in the week, and for some particular occasions, the Lord's prayer, decalogue, and creed, &c. A new liturgy of the French reformed church was compiled in 1826. The Kirk of Scotland, or the Scotch Presbyterian church, has no liturgy. The Directory for the public Worship of God contains directions for the assembling of the congregation, the manner of proceeding, &c. In 1562, the Book of Common Order, or Knox's Liturgy, was recommended to be used by those who were unable to pray without a set form. In England, before the reformation, the public service of the church was performed in Latin, and different liturgies were used in different parts of the kingdom. The most celebrated of these were the Breviary and Missal, *secundum usum Sarum*, compiled by the bishop of Salisbury about 1080. They consisted of prayers and offices, some of very ancient origin, and others the produce of later times. In 1536, by Henry VIII's direction, the Bible, Paternoster, creed and decalogue were read in English. In 1547, Edward VI commissioned Cranmer, Ridley, and 11 other divines, to draw up a liturgy in English. This was published in 1549, and again, with some changes, in 1551, whence it was called the *Second Prayer Book of Edward VI.* In the reign of James I, and, finally, at the restoration, it underwent new revisions. This was the last revisal in which any alteration was made by authority. A liturgy of the New Church (the Swedenborgians) signified by the New Jerusalem in the Revelation, was published by the Swedenborgian general conference in England, in 1828. The liturgy of the episcopal church in Scotland, is at present not very different from that of the church of England. The attempt of Charles I (1637) to introduce into Scotland a book of common prayer, copied from the English, produced the solemn league and covenant. The Directory was afterwards adopted, but by no means strictly adhered to. In 1712, the English Book of Common Prayer was finally adopted, with some modifications. The Book of Common Prayer of the Protestant Episcopal church in the U. States was adopted in 1789, and, besides some minor deviations from the English, it omits the Athanasian creed, and, in the Apostles' creed, leaves the officiating minister the discretional power of substituting, for the expression "he descended into hell," "he went into the place of departed spirits." It has adopted the oblation and invocation in the communion service, in which it approximates to the Scottish communion office, and has added six forms of prayer—for the visitation of prisoners; for thanksgiving for the fruits of the earth and other blessings; for morning and evening prayer in families; for the consecration of a church or chapel; and, lastly, a beautiful and impressive office of institution of ministers. (See Koecher's *Bibliotheca Liturgica;* Bingham's *Origines Ecclesiasticæ;* Comber's *Scholastical History of Liturgies*.)

Livadia; the ancient Hellas (q. v.), or Middle Greece (see *Greece*); situated to the south of Janna, or Thessaly (q. v.), and north of Morea (q. v.), bounded east by the Ægean, and west by the Ionian sea, 5800 square miles in extent, and containing 250,000 inhabitants, chiefly Greeks. The name is derived from the town of Livadia (or Lebadia; 2000 houses and 6000 inhabitants). The boundary between Livadia and Thessaly is formed by the mountain Œta (on whose summit Hercules was burned), now called *Kumaita.* It is only accessible, at least for artillery, by a narrow pass between Œta and the swamps on the Malian gulf (gulf of Zeitouni), or the famous pass of Thermopylæ. (q. v.) In the war of the Greek revolution, several decisive battles were fought in this part of the country, the most bloody near the town of Zeitouni, the ancient Lamia, which lies to the north. From this pass, which is about six miles long, we enter, 1. Locris, the northerly part of Livadia; farther south lie, 2. Phocis, with the ancient Elatæa, now Turko-Chorio, watered by the river Cephissus, and intersected by mount Parnassus (q. v.); and, still more southerly, 3. Bœotia; 4. Attica; and 5. Megaris; to the west are, 6. Ætolia; and 7. Acarnania. The ancient names of places are now revived, and Middle Greece has been divided into East and West Hellas. (See *Greece, Revolution of Modern.*) The boundary of Greece, as settled by the protocol of February, 1830, runs north of Livadia, thus placing it within the kingdom of Greece. The character of the present inhabitants of these countries is as various as their descent and mode of life. The first inhabitants of the coast were chiefly of foreign, or, as the Greeks called it, of barbarian descent. Their occupation was piracy. The mountaineers were robbers, constantly at war with their oppressors. Missolonghi (q. v.), the only strong-hold on the western coast, has been rendered celebrated by late events. To the north is the ancient Actium (q. v.), or Azio. Prevesa, which, with Parga (q. v.), and the coast of Epirus, was ceded to the Turks in 1800, and Arta (q. v.), near the gulf of Arta, belong to Albania. In the southerly part of Locris lies Lepanto. (q. v.) In Bœotia (q. v.) is the town Livadia, formerly Lebadia, at the foot of mount Helicon, near which are the cave of Trophonius (q. v.), and the fountains of Mnemosyne (memory) and Lethe (oblivion). Not far off are Leuctra and Platæa (q. v.), and the ruins of Thespiæ, whose inhabitants were selected by Leonidas to die for their country, with the 300 Spartans. Tanagra, on the Æsopus, was the birth-place of the celebrated Corinna. (q. v.) Mount Cithæron divides Bœotia from Attica (q. v.) and from Megaris. (q. v.) (See *Greece*.)

Live Oak. (See *Oak*.)

Liver (*jecur*, *hepar*); a large gland which occupies a considerable portion of the cavity of the belly, and which secretes the bile. It is a single organ, of an irregular shape, brownish-red color, and, in general, is smaller in proportion as the individual is more healthy. It occupies the right *hypochondrium*, or space included by the false ribs, and a part of the epigastric region, and lies immediately under the diaphragm (midriff), above the stomach, the transverse colon, and right kidney; in front of the vertebral column, the *aorta* and the inferior *vena cava*, and behind the cartilaginous edge of the chest. The right false ribs are on its right, and the spleen on its left. The superior surface is convex, and the inferior is irregularly convex and concave, which has given rise to the division into the *right*, or *large* lobe, the *small*, or *inferior* lobe, and the *left* lobe. The right extremity of the liver is lower than the left, and is the most bulky part of the organ. The pressure of the surrounding organs, and certain folds of *peritoneum*, called its *ligaments*, which connect it with the diaphragm, retain the liver in its place, leaving it, at the same time, a considerable power of changing its relative position. The organization of the liver is very complicated. Besides its peculiar tissue, or *parenchyma*, the texture of which is unknown, it receives a larger number of vessels than any other gland. A peculiar venous system—that of the *vena portarum*—is distributed in it. To this must be added the ramifications of the hepatic artery and veins, the nerves, which are small, the lymphatic vessels, the excretory tubes, and a peculiar tissue, enclosed by a double membrane, a serous or peritoneal, and a cellular one. The excretory apparatus of the bile is composed of the hepatic duct, which, rising immediately from the liver, unites with the cystic duct, which terminates in the gall-bladder. The choledochic duct is formed by the union of the two preceding, and terminates in the *duodenum*. (See *Gall-Bladder*, and *Bile*.)

Liverpool; a borough town of England, in the county palatine Lancaster; the principal seaport in the British dominions. It extends along the eastern bank of the Mersey, about three miles, and, at an average, about a mile inland. On the west side of it, and forming a remarkable feature in the town, lie the docks, which, with the wharfs, warehouses, &c., extend in an immense range along the bank of the river. On the other side, the town is prolonged into numerous suburbs, consisting of villas and country houses, the residence or retreat of its wealthy citizens. The streets are mostly spacious, airy, some of them elegant, and the greater part of them lighted with coal gas. The older and more confined parts of the town are in a state of improvement. The public buildings are elegant. The principal of these are the town hall, exchange buildings, corn exchange, lyceum, athenæum, Wellington rooms, infirmary, workhouse, blue-coat school, dispensary, and asylum for the blind. There are at present 20 churches belonging to the establishment, many of them of much architectural beauty; a greater number of chapels belonging to various denominations of dissenters; with four Roman Catholic chapels, a meeting-house for Quakers, and a Jews' synagogue. The charitable institutions are numerous and well conducted. About 1500 patients are admitted annually into the infirmary. The blue-coat hospital maintains and educates about 200 boys and girls. The school fo the blind is on a most extensive scal

A handsome and spacious theatre, and a circus, are open during great part of the year. At the royal Liverpool institution, public lectures are given; and attached to it is a philosophical apparatus and a museum of natural curiosities. A botanic garden was also established in 1801, at an expense of about £10,000. The lyceum and the athenæum consist each of a news-room and library. There are also the Union news-room, the music-hall, the Wellington rooms, opened in 1816, for balls, concerts, &c., the town hall, the exchange buildings, erected in 1803, for commercial purposes. The area enclosed by the fronts of these buildings and the town hall, is 197 feet by 178. In the centre of the area is erected a superb group of bronze statuary, supposed to be the largest in the kingdom, to commemorate the death of lord Nelson. The trade of Liverpool is very extensive. The most important branch is the trade with Ireland, from whence are imported from 2300 to 2500 cargoes of provisions, grain, &c.; and in return are shipped salt, coals, earthenware, &c. The second branch of commerce is that with the U. States, which consists of more than three fourths of the whole commerce of this country with England. Of this commerce, cotton-wool is the chief article, and may be termed the staple of the Liverpool trade. In 1830, of 793,695 bales of cotton imported into England, 703,200 were carried into Liverpool. In 1824, the whole amount imported into Liverpool was 578,323 bales, of which 413,724 were from the U. States. The West India trade may be considered next in importance. The trade of Liverpool to other parts of the globe, is very great, and rapidly increasing, particularly to the East Indies. In 1824, the amount of the exports of Liverpool was £20,000,000 sterling; the number of vessels belonging to the port in 1829, was 805, of 161,780 tons. Liverpool has an extended system of canal navigation, which has grown up with its increasing trade, and by which it has a water communication with the North sea. The manufactures are chiefly those connected with shipping, or the consumption of the inhabitants. There are extensive iron and brass founderies, breweries, soap-works and sugar-houses. In the vicinity are many wind-mills for grinding corn, which have a very striking appearance; also a large tide-mill, and another worked by steam. A great number of men are employed in building, repairing and fitting out vessels. Of the finer manufactures, the watch-movement and tool business is carried on extensively, being almost entirely confined to this part of the kingdom; and in the neighborhood is a china-manufactory, where beautiful specimens of porcelain are produced. Liverpool sends two members to parliament, chosen by about 4500 freemen. It is governed by the corporation, consisting of a common council of 41 persons, from among whom a mayor and two bailiffs are annually chosen by the free burgesses. The following is an account of the progressive increase of its population:—In 1700, 5000; in 1760, 26,000; in 1773, 34,407; in 1790, 56,000; in 1801, 77,653; in 1811, 94,376; in 1821, 118,972 (or, including the suburbs and a floating population of 10,000 sailors, 151,000); in 1831, 163,000; with the suburbs, 200,000. The Liverpool and Manchester rail-road commences with a tunnel, 22 feet high, 16 broad, 6750 long. The thickness from the roof to the surface of the ground, varies from 5 feet to 70. About two thirds of it is cut through solid rock. The railroad is continued through the remaining distance of 30 miles, with embankments, viaducts and excavations. It is traversed by locomotive steam-carriages, consuming their own smoke, and running at the rate of 18 miles an hour. The quantity of merchandise conveyed between Liverpool and Manchester, has lately been estimated at 1500 tons a day, the number of passengers at 1300. But the most remarkable objects in Liverpool are its immense docks. The old dock, the first opened, was constructed in the beginning of the eighteenth century. In 1821, there were six docks and basins, covering an area of 63 square acres. The Brunswick dock has since been added, of 10 acres, and additional docks are in contemplation, which will give an area of 92 square acres. In 1724, the dock dues were £810 11s.; in 1828, £141,369, on 10,700 vessels. Before the sixteenth century, Liverpool was a mere hamlet; in 1716, her merchants began to engage in the trade to America and the West Indies. The growth of the manufactures of Manchester promoted the growth of the place, while an extensive contraband commerce with South America and the chief portion of the African trade, made it the first seaport in Great Britain. 204 miles from London; 36 from Manchester; lon. 2° 59′ W.; lat. 53° 25′ N.

Liverpool, Charles Jenkinson, earl of, was the eldest son of colonel Jenkinson, the youngest son of sir Robert Jenkinson, the first baronet of the family. He was born in 1727, and educated at the Charter-house, whence he removed to University college, Oxford, where he took the degree of M. A. in 1752. In 1761, he obtained a seat in parliament, and was made under-secretary of state. In 1766, he was named a lord of the admiralty, from which board he subsequently removed to that of the treasury. In 1772, he was appointed vice-treasurer of Ireland, and was rewarded with the sinecure of the clerkship of the Pells, purchased back from Mr. Fox. In 1778, he was made secretary at war, and, on the dissolution of the administration of lord North, joined that portion of it which supported Mr. Pitt, under whose auspices he became president of the board of trade, which office he held in conjunction with the chancellorship of the duchy of Lancaster, given him in 1786. In the same year (1786), he was also elevated to the peerage, by the title of baron Hawkesbury, of Hawkesbury, in the county of Gloucester; and, in 1796, he was created earl of Liverpool. He remained president of the board of trade until 1801, and chancellor of the duchy of Lancaster until 1803. His death took place on the 7th December, 1808, at which time he held the sinecures of collector of the customs inwards of the port of London, and clerk of the Pells in Ireland. The earl of Liverpool for a long time shared in all the obloquy attached to the confidential friends of the Bute administration, and, in a particular manner, was thought to enjoy the favor and confidence of George III, of whom it was usual to regard him as the secret adviser. The earl of Liverpool was the author of the following works—a Discourse on the Establishment of a Constitutional Force in England (1756); a Discourse on the Conduct of Great Britain in Regard to Neutral Nations, during the present War (1758); a Collection of Treaties, from 1646 to 1673 (3 vols., 8vo., 1785); a Treatise on the Coins of the Realm, in a Letter to the King (1805).

Liverpool, Robert Banks Jenkinson, earl of; son of the preceding; born in 1770, and died in 1828; known in public life, from 1796 to 1808, as lord Hawkesbury; from 1812 to 1827, first lord of the treasury. He was educated at the Charter-house; on leaving which, he was entered of Christ-church, Oxford. His father directed his reading and studies in political economy, and other branches of political science at this time; and, on leaving the university, Mr. Jenkinson set out on his travels. He was in Paris at the outbreak of the French revolution, and, in 1791, took his seat in the house of commons, in which he distinguished himself as a debater and an efficient member of the house. In 1801, he was appointed secretary of state for foreign affairs, and, two years later, was called to the house of peers as baron Hawkesbury. On the death of Pitt (1806), the premiership was offered him, but declined; and, after the short administration of Fox, his former office was again conferred on him, in the Percival ministry. After the assassination of Mr. Percival, lord Liverpool (as he had become, on the death of his father, in 1808) accepted (1812), though reluctantly, the post of premier. His administration was marked by great moderation and prudence at home, but the foreign department bore the different impress of lord Londonderry (q. v.) and Canning. (q. v.) Lord Liverpool lost popularity by the trial of the queen, which was closed, as is well known, by the abandonment of the bill of pains and penalties, on the part of the ministers. It was on this occasion, that earl Grey demanded of him "how he dared, upon such evidence, to bring forward a bill of degradation, the discussion of which had convulsed the country from one end to the other, and might have been fatal to her independent existence." A paralytic stroke, in the beginning of 1827, having rendered him incapable of attending to business, Mr. Canning succeeded him in the premiership.

Liverwort. The plant so called is the *hepatica triloba* of Pursh. Like many other supposed remedies, it has had a temporary reputation for the cure of pulmonary consumption. It is a pretty little plant, flowering very early in spring, and is common to the U. States and Europe. There are two varieties, one with obtuse, and the other with acute lobes to the leaves.

Livery (*livrée*). At the plenary courts in France, under the sovereigns of the second and third races, the king delivered to his servants, and also to those of the queen and the princes, particular clothes. These were called *livrées*, because they were delivered at the king's expense. The expense of these donations, together with that of the table, the equipages, the presents for the nobles and the people, amounted to an immense sum. A prudent economy afterwards suppressed these plenary courts, but the livery of the servants still remained. In London, by *livery* or *livery men*, are meant those freemen of the city who belong to the 91 city companies, which embrace the various trades of the metropolis ; they have the exclusive privilege of voting at the election of members of parliament and of the lord mayor. Out of this body, the common council, sheriffs, aldermen, and other officers for the government of the city, are elected.

Livia Drusilla ; wife of the emperor Augustus, daughter of Livius Drusus Claudianus, who lost his life in the battle of Philippi, on the side of Brutus and Cassius. She was first married to Tiberius Claudius Nero, by whom she had two sons, viz. Drusus and Tiberius. When she fled with her husband to Italy, before the triumvir Octavianus, she narrowly escaped being made prisoner by him, who afterwards became her husband. From that place, she went with her son to Antony, in Achaia, and when her husband was reconciled to Augustus, returned to Rome. Here her personal and mental charms made such an impression on the triumvir, that he repudiated his wife Scribonia, in order to marry her, and, in the 715th year of Rome, tore her, though pregnant, from her husband. Livia knew how to use her power over the heart of Augustus, for the attainment of her ambitious purposes, and effected the adoption of one of her sons as successor to the throne. At her instigation, Julia, the only daughter of Augustus, was banished. Ancient writers, too, almost universally ascribe to her the deaths of the young Marcellus, of Lucius Cæsar, and the banishment of Agrippa Posthumus. Augustus, having no longer any near relatives, yielded to her requests in favor of Tiberius. In the emperor's will, Livia was constituted the first heiress, was received into the Julian family, and honored with the name of *Augusta*. She was also made chief priestess in the temple of the deified Augustus, and many coins were struck in her honor. But Tiberius proved himself very ungrateful to his mother, to whom he was indebted for every thing, and would not allow the senate to bestow upon her any further marks of respect. He did not, however, treat her in public with disrespect ; but, when he left Rome, in order to gratify his lusts in an uninterrupted solitude, he fell into a violent dispute with her, did not visit her in her last sickness, would not see her body after her death, and forbade divine honors to be paid to her memory.

Livingston, Philip, one of the signers of the American Declaration of Independence, was born at Albany, in New York, January 15, 1716, was graduated at Yale college, in 1737, and became a merchant in New York. In 1759, he was returned a member to the general assembly of the colony, and afterwards to the general congress of 1774, and to the congress that issued the Declaration of Independence. In 1777, Mr. Livingston was a senator in the state legislature of New York. In 1778, he was again deputed to the general congress, where his efforts aggravated a dropsy of the chest. He died, June 12, 1778, at York, Pennsylvania, to which congress had retired.

Livingston, Robert R., an eminent American politician, was born in the city of New York, November 27, 1746. He was educated at King's college, and graduated in 1765. He studied and practised law in that city with great success. Near the commencement of the American revolution, he lost the office of recorder, on account of his attachment to liberty, and was elected to the first general congress of the colonies ; was one of the committee appointed to prepare the Declaration of Independence ; in 1780, was appointed secretary of foreign affairs, and, throughout the war of the revolution, signalized himself by his zeal and efficiency in the revolutionary cause. (See his letters, in the *Diplomatic Correspondence of the Revolution*.) At the adoption of the constitution of New York, he was appointed chancellor of that state, which office he held until he went, in 1801, to France, as minister plenipotentiary, appointed by president Jefferson. He was received by Napoleon Bonaparte, then first consul, with marked respect and cordiality, and, during a residence of several years in the French capital, the chancellor appeared to be the favorite foreign envoy. He conducted, with the aid of Mr. Monroe, the negotiation which ended in the cession of Louisiana to the U. States, took leave of the first consul (1804), and made an extensive tour on the continent of Europe. On his return from Paris, as a private citizen, Napoleon, then emperor, presented to him a splendid snuff-box, with a miniature likeness of himself (Napoleon), painted by the celebrated Isabey. It was in Paris that he formed a friendship and close personal intimacy with Robert Fulton, whom he materially assisted with counsel and money, to mature his plans of steam navigation. (See *Fulton*, and *Steam-Boat*.) In 1805, Mr. Livingston returned to the U. States, and thenceforward employed himself in promoting the arts and agriculture. He introduced into the state of New York the use of gypsum and the Merino race of sheep.

He was president of the New York academy of fine arts, of which he was a chief founder, and also of the society for the promotion of agriculture. He died March 26, 1813, with the reputation of an able statesman, a learned lawyer and a most useful citizen.

Livingston, Brockholst, judge of the supreme court of the U. States, was the son of William Livingston, governor of New Jersey, and was born in the city of New York, November 25, 1757. He entered Princeton college, but, in 1776, left it for the field, and became one of the family of general Schuyler, commander of the northern army. He was afterwards attached to the suite of general Arnold, with the rank of major, and shared in the honor of the conquest of Burgoyne. In 1779, he accompanied Mr. Jay to the court of Spain, as his private secretary, and remained abroad about three years. On his return, he devoted himself to law, and was admitted to practise in April, 1783. His talents were happily adapted to the profession, and soon raised him into notice, and, ultimately, to eminence. He was called to the bench of the supreme court of the state of New York, January 8, 1802, and, in November, 1806, was transferred to that of the supreme court of the U. States, the duties of which station he discharged, with distinguished faithfulness and ability, until his death, which took place during the sittings of the court at Washington, March 18, 1823, in the 66th year of his age. He possessed a mind of uncommon acuteness and energy, and enjoyed the reputation of an accomplished scholar, and an able pleader and jurist, an upright judge, and a liberal patron of learning.

Livius, Andronicus, the father of Roman poetry, by birth a Greek of Tarentum, first went to Rome at the commencement of the sixth century from the foundation of the city, as instructer to the children of Livius Salinator. He introduced upon the Roman stage, dramas after the Grecian model, and, besides several epic poems, wrote a translation of the Odyssey, in the old Saturnine verse. We have only a few fragments of his writings, which may be found in the *Comici Latini*, and the *Corpus Poëtarum*. (See Fabricius, *Bib. Lat.* iv, 1.; Tit. Livii, *Hist.* vii, 2.)

Livius, Titus, born at Padua, in the year of Rome 695 (59 B. C.), came from the place of his birth to Rome, where he attracted the notice of Augustus, after whose death he returned to his native town, where he died A. D. 16. His history of Rome, to which he devoted 20 years, rendered him so celebrated, that a Spaniard is said to have gone from Cadiz to Rome merely for the purpose of seeing him. Of the circumstances of his life we know little. He was called, by Augustus, the *Pompeian*, because he defended the character of Pompey, in his history; this, however, did not prevent his enjoying the patronage of the emperor till the time of his death. According to Suidas, Livy did not receive, during his lifetime, the applause which his history deserved, and it was not till after his death that full justice was rendered him. In the fifteenth century, his body was supposed to have been discovered at Padua, and a splendid monument was raised to his memory. His Roman history begins at the landing of Æneas in Italy, and comes down to the year of the city 744. His style is clear and intelligible, labored without affectation, diffusive without tediousness, and argumentative without pedantry. His descriptions are singularly lively and picturesque, and there are few specimens of oratory superior to that of many of the speeches with which his narratives are interspersed. Yet he was accused (see *Quintilian*, viii, 1) of provincialism ("*patavinitas*"). His whole work consisted of 140 or 142 books, of which we have remaining only the first 10, and those from the 21st to the 45th, or the first, third and fourth decades, and half of the fifth. In the first 10 books, the history extends to the year 460; the portion between the 21st and 45th books contains the account of the second Punic war (A. U. C. 536), and the history of the city to the year 586. In the year 1772, Bruns, while engaged in collecting various readings, discovered, in a *codex rescriptus*, in the Vatican, a fragment of the 91st book; but it is not of much importance. It was printed at Rome, and reprinted at Leipsic, in 1773. The epitome of the whole work, which has been preserved, has been ascribed, by some, to Livy, by others, to Florus. Following this outline, and deriving his facts from other credible sources of Roman history, Freinsheim composed his Supplement to Livy. The best editions of Livy are those of Gronovius (Amsterdam, 1679, 3 vols.), of Drakenborch (Leyden, 1738—46, 4 vols.), and, among the later editions, those of Ernesti, Schäfer, Ruperti and Döring. The best English translation is that of George Baker (6 vols., 1797), which has been often reprinted in England and the U. States.

Livonia. The Russian provinces upon the Baltic, viz. Livonia, Esthonia, Courland and Semigallia, early belonged to the Russian states, as tributaries, while they retained their own institutions, and were never protected by the Russians from hostile inroads. During the period when the Russian empire was in a state of confusion, they became independent, but were again reduced to subjection by Peter the Great. Livonia was little known to the rest of Europe till 1158, when some merchants of Bremen, on their way to Wisby, in Gothland, in search of new sources of commerce, were thrown upon the coasts of Livonia. The country was afterwards frequently visited by the people of Bremen, who soon formed settlements there. An Augustine friar, Meinhard, with other Germans, emigrated thither about 28 years after. He converted the inhabitants to Christianity, and was their first bishop. The third bishop after him, by name Albert, who advanced as far as the Dwina, first firmly established the foundations of the spiritual authority. He built the city of Riga, in the year 1200, and made it the see of the bishopric. At the close of this century, the Danish king, Canute VI, made himself master of these provinces, which were, however, given up by his successor, Wladimir III, for a sum of money, to the Teutonic knights, with whom the order of Brethren of the Sword, founded by Albert, in 1201, had been united, so that the dominion of the Teutonic order comprehended all the four provinces above mentioned. They were, however, too weak to hold them against the Russian czar, John II Wasiliwitch, who was bent upon reuniting them with the Russian empire, and the state was dissolved. Esthonia then placed itself under the protection of Sweden; Livonia was united to Poland; and Courland, with Semigallia, became a duchy, under Polish protection, which the last grand master of the Teutonic order held as a Polish fief. From this time, Livonia became a source of discord between Russia, Sweden and Poland, for near a century, from 1561 to 1660. At the peace of Oliva, in 1660, this province was ceded to Sweden by Poland, and it was again united to the province of Esthonia. (q. v.) By the peace of Nystadt, in 1721, both provinces were again united to the Russian empire. Livonia is bounded east by Ingria, south by Lithuania and Samogitia, west by the Baltic, and north by the gulf of Finland. It is productive in grass and grain, and consists of two provinces, Esthonia and Livonia, of which the first lies upon the gulf of Finland, the last upon the borders of Courland and Poland. The Livonians, like the Lithuanians, are a branch of the Finns, and are, for the most part, in a state of servitude; but the grievous oppression, under which they were held by their tyrants, the nobility, has been much lightened by an imperial decree of 1804. Besides the original inhabitants, there are, in the country, many Russians, Germans and Swedes. The greater part are Lutherans; but Calvinists, Catholics, and the Greek church, enjoy liberty of worship. In 1783, the country was newly organized, and Livonia became the government of Riga, and Esthonia that of Revel. The name of Livonia was, however, restored by the emperor Paul, in 1797. It is, at present, divided into five circles. The government of Riga contains 20,000 square miles, and 980,000 inhabitants.—See the *Essai sur l'Histoire de la Livonie*, by count de Bray (Dorpat, 1817, 3 vols.), and Granville's *Journey to St. Petersburg* (1828).

Livre; an ancient French coin. Ths word is derived from the Latin *libra* (q. v.), a pound. It appears as early as 810 B. C. At first, the livre was divided into 20 *solidos;* afterwards into 10 *sous;* in Italy, into 20 *soldi;* in Spain, into 20 *sueldos*, as the old German pound into 20 *schillinge*, and the English into 20 shillings. The livre was, at first, of high value. The revolution changed the name into *franc*. (See *Franc*, and *Coins*.)

Livy. (See *Livius*.)

Lizard. All reptiles having a naked body, four feet and a tail, are vulgarly known under the name of *lizards*. Linnæus himself only constituted two genera of this numerous class of animals—*draco* and *lacerta;* but more modern naturalists have greatly increased the number of genera. The following is the arrangement followed by Cuvier in the last edition of his *Règne animal:*—

Second Order of REPTILIA, or SAURIENS.

Family I.
CROCODILIENS.
Crocodilus, *Br.*
Sub-genera, 3.
Family II.
LACERTIENS.
Monitor.
Lacerta.
Sub-genera, 7.
Family III.
IGUANIENS.
Section I.
Acamiens.
Stellio, *Cuv.*
Agama, *Daud.*
Iotiurus, *Cuv.*
Draco, *Lin.*
Sub-genera, 18.
Section II.
Iguaniens proper.
Iguana, *Cuv.*
Ophryessa, *Boié.*
Basiliscus, *Daud.*
Polychrus, *Cuv.*
Ecphimotes, *Fitz.*
Oplurus, *Cuv.*
Anolius, *Cuv.*
Family IV.
GECKOTIENS.
Gecko, *Daud.*
Sub-genera, 8.
Family V.
CHAMÆLIONIENS.
Chamæleo.
Family VI.
SCINCOIDIENS.
Scincus, *Daud.*
Seps, *Daud.*
Bipes, *Lacep.*
Chalcides, *Daud.*
Chirotes, *Cuv.*

Besides these, the salamanders, which belong to the fourth order, or *Batraciens*, are also generally termed *lizards*. (See *Alligator*, *Basilisk*, *Chameleon*, *Crocodile*, *Dragon*, *Gecko*, *Iguana*, *Monitor*, &c.)

Lizard, Cape; the most southern promontory of England, in the county of Cornwall.

Llama (*auchenia*, Illig.). This valuable animal, which supplies the place of the camel to the inhabitants of Southern America, is much more graceful and delicate than the Eastern "ship of the desert." Their slender and well formed legs bear a much more equal proportion to the size and form of their body. Their necks are more habitually maintained in an upright position, and are terminated by a much smaller head. Their ears are long, pointed, and very movable; their eyes large, prominent and brilliant, and the whole expression of their physiognomy conveys a degree of intelligence and vivacity that is wanting in the camel. There has been much difference of opinion among naturalists as regards the number of species. The first travellers in America spoke of the *llama*, the *guanaco*, the *alpaca*, and the *vicugna*, without giving such details as were requisite to identify them. Most of the early naturalists, including Linnæus, reduced them to two species, the *llama* or *guanaco*, used as a beast of burden, and the *alpaca*, *paco* or *vicugna*, prized for its wool and flesh. Buffon was at first of the same opinion, but, subsequently, admitted the *vicugna* as a third species. Molina also separated the *guanaco*, and added a fifth, the *hueque* or *Chilian sheep*, both of which species were adopted by most subsequent compilers. Mr. F. Cuvier, however, limits the number to three, rejecting the two last mentioned; whilst baron Cuvier only admits the *llama* and the *vicugna*, considering the *alpaca* as a variety of the first. The llamas inhabit the Cordilleras of the Andes, but are most common in Peru and Chile; they are rare in Colombia and Paraguay. They congregate in large herds, which sometimes consist of upwards of a hundred individuals, and feed on a grass peculiar to the mountains, termed *ycho*. As long as they can procure green herbage, they are never known to drink. At the period of the arrival of the Europeans in Peru, these animals were the only ruminants known to the inhabitants, by whom they were used as beasts of burden, and killed in vast numbers for their flesh and skins. Gregory de Bolivar asserts that, in his time, 4,000,000 were annually killed for food, and 300,000 used in the service of the mines of Potosi. From the form of their feet, they are peculiarly fitted for mountainous countries, being, it is said, even safer than mules. They are also maintained at a trifling expense, wanting, as is observed by father Feuillée, "neither bit nor saddle; there is no need of oats to feed them; it is only necessary to unload them in the evening, at the place where they are to rest for the night; they go abroad into the country to seek their own food, and, in the morning, return, to have their baggage replaced, and continue their journey." They cannot carry more than from 100 to 150 pounds, at the rate of 12 or 15 miles a day. Like the camel, they lie down to be loaded, and when they are wearied, no blows will compel them to proceed. In fact, one of their great faults is the capriciousness of their disposition. When provoked, they have no other mode of avenging themselves than by spitting, which faculty they possess in an extraordinary degree, being capable of ejecting their saliva to a distance of several yards. This is of a corroding quality, causing some degree of irritation and itching, if it falls on the naked skin. Besides their services as beasts of burden, the llamas afford various articles of no small utility to human life. The flesh is considered very wholesome and savory, especially from the young animal. Their wool, though of a strong, disagreeable scent, is in great request, especially among the native Indians, who employ it in the manufacture of stuffs, ropes, bags and hats. Their skins are of a very close texture, and were formerly employed by the Peruvians for soles of shoes, and are much prized by the Spaniards for harness. The female llama goes five or six months with young, and produces one at a birth. The growth of the young is very rapid; being capable of producing at three years of age, and beginning to decay at about twelve. The llama is four feet and a half high, and not more than six in length. He has a bunch on his breast, which constantly exudes a yellowish oily matter. His hair is long and soft; his colors, various shades of white, brown, &c. The tail is rather short, curved downwards. The hoofs are divided; or, rather, the toes are elongated forwards, and terminated by small horny appendages, surrounding the last phalanx only, rounded above, and on either side somewhat curved. There are several specimens of the llama in the different menageries in Europe, where they appear to thrive very well.

Llaneros (from *llano*, plain); the inhabitants of the plains, or *Llanos* (q. v.). In this article, we speak more particularly of those in Venezuela. The immense plains of Venezuela, which afford excellent pasture for all kinds of flocks and herds, are generally inhabited by converted Indians or descendants of Indians and whites, who are distinguished for activity, ferocity, ignorance and semi-barbarous habits, and are called *Llaneros*. From childhood they are accustomed to catch and mount wild horses, which roam by hundreds over the savannas. When at war, they are generally armed with a long lance, and often have neither swords nor pistols. Uniform is unknown among them; a few rags cover the upper part of their body; their pantaloons are broad and full, somewhat in the Mameluke style. They have blankets (*mantas*), as is the case with most Indians in habits of intercourse with whites; many of them have hammocks. They are brave in defending their plains. Their manner of fighting is much like that of the Cossacks; they never attack in regular files, but disperse themselves in every direction, rushing onward, flying, repeatedly attacking and constantly harassing the enemy. Paez, who was born and bred among them, and is in manners, language and ferocity, a complete Llanero, commanded them during the war of Colombian independence, and is adored by them. They choose their own officers, and dismiss them at pleasure. They suffer no foreigners among them. As they have played a conspicuous part in the revolutions of Colombia, we subjoin the description of them by colonel Hippisley, which is corroborated by general Ducoudray Holstein, in his Memoirs of Simon Bolivar. "Sedeno's cavalry (*Llaneros*)," says colonel Hippisley, "were composed of all sorts and sizes, some with saddles, very many of them without; some with bits, leather head-stalls and reins; others with rope lines, with a bite of the rope placed over the tongue of the horse as a bit; some with old pistols hung over the saddle bow, either incased in tiger-skin, or ox-hide holster-pipes, or hanging by a thong of hide, one on each side. As for the troopers themselves, they were from 13 to 46 years of age, of black, brown, sallow complexions, according to the castes of their parents. The adults wore coarse, large mustachios, and short hair, either woolly or black, according to their climate or descent. They had a ferocious, savage look. They were mounted on miserable, half-starved, jaded beasts, horses or mules; some without trowsers, small clothes, or any covering, except a bandage of blue cloth or cotton round their loins, the end of which, passing between their legs, was fastened to the girth, round the waist; others with trowsers, but without stockings, boots or shoes, and a spur generally gracing the heel of one side; and some wearing a kind of sandal made of hide, with the hair side outward. In their left hand they hold their reins, and in their right a pole, from eight to ten feet in length, with an iron head, very sharp at the point and sides, and rather flat; in shape like our sergeants' halbert. A blanket of about a yard square, with a hole, or rather a slit, cut in the centre, through which the wearer thrusts his head, falls on each side of his shoulders, thus covering his body, and leaving his bare arms at perfect liberty to manage his horse, or mule, and lance. Sometimes an old musket, the barrel of which has been shortened 12 inches, forms his carbine, and a large sabre or hanger, or cut and thrust, or even a small sword, hangs by a leather thong to his side. A flat hat, a tiger skin or high cap, covers his head, with a white feather or a white rag stuck into it." This picture will remind the reader of some of the cavalry which Russia marched from her Asiatic dominions against France in the final struggle with Napoleon.

Llanos; the name given in the northern part of South America, particularly in Colombia, to vast plains, almost entirely level, and interrupted only by detached elevations, called, in Spanish, *mesas*. The superficial area of the *llanos* is estimated at 296,800 square miles; they extend from the coast of Caracas to Guiana, and from Merida to the mouth of the Orinoco and the Amazons. A large portion of them is sandy and without much vegetation, except on the banks of the rivers and during inundations: some fan-palms are found. When the inundations occur, the beasts take refuge upon the *mesas*. The *llanos* have been supposed by some to have formerly been the bottom of the sea. They are distinguished into the (*a.*) *Llano of Colombia*, extending from the mountains of Caracas to the mouth of the Orinoco, and to the mountains of St. Fé, and containing several *mesas* (de Amana, de Guanipa, de Paja, 50—65 feet in height), which, in the rainy season, are covered with rich verdure, and inhabited by herds and flocks of all descriptions.—(*b.*) *Llano de Casanare;* a continuation of the former, between the Orinoco, Meta and Sinaruca.—(*c.*) *Llano de S. Juan;* very fertile, woody, often so thickly overgrown, that it can only be penetrated by means of the numerous rivers; lies on the southern bank of the Meta, reaching to the Amazons, and was discovered in 1541, by Gonzalo Ximenes Quesada.—(*d.*) *Llano of the Amazons*, or *the Maranhon;* on both sides of the river, extending from the Andes to the mouth of the Maranhon, over 2100 miles; it is also wooded, and rich in grass, entirely without stones, and inhabited by many species of animals. The inhabitants of these plains are called *Llaneros* (q. v.). Farther to the south, such plains are called *pampas* (q. v.).

Llorente, don Juan Antonio, born in 1756, near Calahorra, in Arragon, author of the first history of the Spanish inquisition, drawn from its own records, received his education at Tarragona, entered the clerical order in 1770, received a benefice at Calahorra, and, in 1779, by means of a dispensation (as he was hardly 23 years old), was consecrated a priest. This, however, did not prevent him from pursuing the study of the canon law, while he devoted his leisure to the muses. At Madrid, he was attracted by the theatre, and composed a sort of melo-drama, the Recruit of Galicia. A tragedy, entitled Eric, the King of the Goths, was not represented, as it contained allusions to existing difficulties at the court of Madrid. In 1789, he was made chief secretary to the inquisition. Here he had an opportunity to learn from the archives of the tribunal the history of its shameful and barbarous proceedings. In 1791, he was sent back to his parish, on suspicion of being attached to the principles of the French revolution, and in spite of the protection of the minister Florida Blanca, who was an enlightened statesman. Here he occupied himself actively in the support of emigrant French priests; and many of these unfortunate men were indebted to him alone for their subsistence. The manuscript of a history of the emigration of the French priesthood, founded upon the knowledge obtained from these acquaintances, and written in 1793, was lost by the fault of the censors of the press. In the mean time, don Manuel Abad la Sierra, an enlightened man, was made grand inquisitor, who, intending to reform the administration of this tribunal, employed Llorente to prepare a plan for the purpose. But, before it was completed, the removal of Abad la Sierra was obtained by his enemies. Some time after, the design was taken up again at Madrid, and Llorente repaired thither to submit the plan which he had prepared in conjunction with the bishop of Calahorra. Jovellanos (q. v.), minister of justice, supported them. It was proposed to make the proceedings of the tribunal of the inquisition public. All depended upon their obtaining the assistance of the prince of peace, the favorite of the queen. But Jovellanos was suddenly removed from office, and the inquisition remained as it was.* (See *Inquisition.*) Llorente soon felt its arm himself. His correspondence was seized; the most innocent expressions were misinterpreted; he was sentenced to a month's confinement in a monastery, and to pay a fine of 50 ducats, and was removed from the ap-

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*A French ultra, Clausel de Coussergues, having publicly asserted that the inquisition had not burnt any person since 1680, Llorente, in his *Lettre à M. Clausel, &c., sur l'Inquisition d'Espagne* (Paris, 1817), proved, that from the year 1700 to 1808 alone, no less than 1578 persons had perished at the stake by its means! And how long is it since this holy tribunal suffered the body of general Miranda, who had died in their dungeons, to be devoured by dogs, and burnt a German officer in effigy, because he had, during the war under Napoleon, translated a book, which, in Spain, was considered heretical?

pointments which he held in the Holy Office. He lived in disgrace till 1805, when his reputation caused him to be recalled to Madrid to investigate some dark points of history. He was then appointed a canon of the cathedral of Toledo in 1806, and, in 1807, after he had proved himself of noble descent, he was made a knight of the order of don Carlos. In the next year, when Napoleon undertook to regulate the affairs of Spain, Llorente repaired to Bayonne, at Murat's request, and took part in organizing the new institutions of his country, which, however, could not take permanent root, as the clergy saw in them the destruction of their authority. When Joseph Bonaparte entered Madrid, in 1809, he charged Llorente to take possession of the papers of the inquisition, and of the buildings and archives which were under the superintendence of the general commandant of the place. In 1812, Llorente published a historical memoir on the inquisition, with the view of freeing the Spanish nation from the charge of having ever been attached to this institution, and to the *autos da fé*. Llorente was almoner of king Joseph, who made him, successively, counsellor of state, commander of the royal order of Spain, commissioner-general of the *Cruzada*. He followed Joseph to Paris after the disastrous campaign of the French in Russia, and in 1815 had the intention of accompanying him to the U. States; but, remaining to take leave of his family, he was induced to give up the plan. In 1817, he published his history of the inquisition in Spain, in French—a work which was soon translated into most European languages, and which has become a historical source. An abridgment has been published by Leonard Gallois. When the old authorities were restored, he was obliged to flee. Banished from his country, deprived of his property and of his fine library, Llorente lived in France, after the downfall of the French party in Spain, in indigence. But the hatred of the illiberal party arose, at last, to such a height, that the university of Paris forbade him from teaching the Spanish language in the boarding-schools, which had been his only means of support. The rage of his enemies was raised to the highest pitch by the publication of his *Portraits politiques des Papes*, and the old man was ordered, in the middle of the winter of 1822, to leave Paris in three days, and France in the shortest possible time. He was not allowed to rest one day, and died exhausted, a victim to the persecutions of the nineteenth century, a few days after his arrival in Madrid (Feb. 5, 1823). During his residence in France, he published his *Mémoires pour servir à l'Histoire de la Révolution d'Espagne, avec des Pièces justificatives*, under the name of R. Nelleto (an anagram of Llorente), in three volumes (Paris, 1815)—a work of value, as illustrative of the events of 1808, in Spain. He also wrote a biographical account of himself (*Noticia biografica de Don J. A. Llorente*, Paris, 1818), and *Aforismos Politicos*. The *Discursos sobre una Constitucion religiosa* was actually written by an American, but arranged and edited by Llorente. He also superintended an edition of *Œuvres complètes de Barthélemy de las Casas* (Paris, 1822).

Lloyd, Henry, a military officer and eminent writer on tactics, born in Wales, in 1729, was the son of a clergyman, who instructed him in the mathematics and classical literature. At the age of 17 he went abroad, and he was present at the battle of Fontenoy. He afterwards travelled in Germany; and having resided some years in Austria, he was appointed aid-de-camp to marshal Lascy. He was gradually promoted, till, in 1760, he was intrusted with the command of a large detachment of cavalry and infantry, destined to observe the movements of the Prussians. Lloyd executed this service with great success; but soon after resigned his commission in disgust. He was then employed by the king of Prussia; and during two campaigns, he acted as aid-de-camp to prince Ferdinand of Brunswick. After the peace of Hubertsburg, he travelled, till the occurrence of hostilities between Russia and Turkey, when he offered his services to Catharine II, who made him a major-general. He distinguished himself in 1774, at the siege of Silistria; and, subsequently, he had the command of 30,000 men, in the war with Sweden. At length, he left Russia, and travelled in Italy, Spain and Portugal. He visited general Eliott, at Gibraltar, whence he proceeded to England. Having made a survey of the coasts of the country, he drew up a Memoir on the Invasion and Defence of Great Britain, which was published in 1798. He retired, at length, to Huy, in the Netherlands, where he died, June 19, 1783. Besides the memoir, he was the author of an Introduction to the History of the War in Germany, between the King of Prussia and the Empress-Queen (London, 1781, 2 vols., 4to.); and a Treatise on the Composition of different Armies, ancient and modern. These works have been translated into French and German, and Jomini made use of the Introduction for his *Traité des Grandes Opérations Militaires.* Other works of Lloyd's are said to have been bought up and suppressed by the English government, and many of his papers are said to have been taken possession of, at his death, by a person supposed to be an emissary of the English ministry, among which were the Continuation of the History of the Seven Years' War, and a History of the Wars in Flanders. The truth, however, of these statements seems doubtful.

Lloyd, James, was born in Boston, in 1769, graduated at Harvard college in 1787, and, on leaving college, entered the counting-house of Thomas Russell, whose extensive foreign trade made it by far the most suitable place in New England to acquire a practical knowledge of business. He visited Europe, and resided some time in Russia, about the year 1792, and, after a successful career in commerce, was elected by the legislature of Massachusetts, in 1808, a senator in congress. During five years, and at a period of great party excitement and national difficulty, Mr. Lloyd conducted himself with prudence, intelligence, firmness and integrity. Brought up in the school of Washington, he kept the political maxims of that great man always in view. When war was declared against England in 1812, he opposed that measure more from a conviction of our incompetent preparation, than from any doubt of our ability to contend successfully when properly armed. His speeches, on that memorable occasion, bear ample testimony to this, as well as to his warm attachment to his country, and solicitude for its naval and military fame. In 1822, the legislature of Massachusetts reappointed him to the national senate. During another period of five years that he held his seat in that body, he added to his previous reputation by a constant application to business. For the greater part of the time, he was chairman of two important committees—that on commerce and that on naval affairs; a station that obliged him to arrange the numerous reports incidental to the current concerns of each session. The investigations to which he was led, in the discharge of these duties, gave rise to several pamphlets, which he published at different times. The last of these was published December 30, 1826, at Boston, and entitled Remarks on the Report of the Committee of Commerce of the Senate of the U. States, March 31, 1826, on the British colonial Intercourse. He died at New York in 1831.

Lloyd's Coffee-House, London, on the northern side of the royal exchange, has long been celebrated as the resort of eminent merchants, underwriters, insurance brokers, &c. As Lloyd's is one of the most extensive and best known insurance offices, the estimate of a vessel at Lloyd's tends much to determine her character among merchants. The books kept here contain an account of the arrival and sailing of vessels, and are remarkable for their early intelligence of maritime affairs.

Lloyd's List, a publication in which the shipping news received at Lloyd's coffee-house is published, on account of the extensive information contained in it, is of great importance to merchants.

Loadstone. (See *Magnet.*)

Loan, Public, is the name given to money borrowed by the state. There may occur cases which require expenses for which the ordinary revenue of the state is not sufficient. If, in such cases, it is not possible to increase the usual revenue by augmenting the taxes, without great inconvenience to the nation, the state will find it advisable to borrow, and to pay interest till it can discharge the principal. If such loans are appropriated to objects by which the means of production are augmented, the state strengthened, and industry increased, they answer the same purpose as those which an industrious tradesman makes in order to enlarge and improve his business. If he is successful, he will increase his property, and the loan itself will afford the means for repaying it. This will be the case also with the state, when it employs the borrowed capital to open to the nation increased means of profitable industry, by facilitating its intercourse with other countries, giving security to its commerce, and increasing its means of production. But if the loans are expended in useless or unfortunate wars, or in other unprofitable ways, they diminish the means of labor or enjoyment, and burthen the nation with taxes to pay the interest and discharge the capital. The capitalists who aid in producing, when they lend their capital to men of business, and receive their interest from the proceeds of their capitals, become unproductive subjects as soon as they lend it to the state which expends it uselessly, for now they live on the products of the capitals of others, when before they lived on the products of their own. As loans, however, may become necessary to the state, the only question is, What is the most advantageous method of making them? A chief distinction among loans is this—that the government promises either the repayment of the capital at a particular time, until which it pays interest, or reserves the liberty to retain the capital, according to its own pleasure, only paying interest regularly. The first kind is liable to occasion trouble to the state, because the payment may often fall at an inconvenient time. The payment of large sums, too, at a particular period, has this disadvantage, that the nation, when the payment is to be made, becomes destitute of ready money. Therefore large loans are usually contracted in such a way that the payment is made, successively, at many periods, or remains entirely indefinite. The last kind of loans requires that the credit of the state should be undoubted, and also that large capitals should have been accumulated in the hands of many rich people, who find their greatest advantage in disposing of them in loans. Where there is a well founded system of credit, statesmen think it most advantageous to secure only the regular payment of the stipulated interest, but to leave the payment of the capital at the pleasure of the state. This is called the *funding system*, as far as fixed funds are assigned for the perpetual payment of the interest. These *perpetual annuities*, as they are called, had their origin in England, but have since been imitated in Holland, France, Russia, Austria, and many other states. In order to provide for the redeeming of the capital, a sinking fund (French, *amortissement*) is established, together with the fund appropriated to the payment of the annuities. This is procured by means of a tax large enough to pay the annuity as long as it lasts, and to redeem, annually, a part of the capital debt. This sinking fund is increased every year, if the annuities, annually redeemed are added to it. (See *Sinking Fund.*) According to this method, the state cannot be said, properly, to borrow capital; it sells annuities, and fixes, at the sale, the rate at which they may be redeemed. They are commonly estimated at so much per cent. The government says—I offer you an annuity of three, four, five, &c. per cent., redeemable at my pleasure. How much will you give me for it? According to the market rate of interest, and the degree of credit which the state enjoys, the capitalists offer 50, 60, 70, 80, 90, &c., per cent. The sinking fund aims to discharge the debt, gradually, by redeeming, annually, part of the annuities, at the market price. If the latter exceeds the price for which it had sold its annuities, it will be obliged to redeem them with loss; but if it is less, it can redeem them with gain. Another kind of loan is, when the capitalists pay 100 per cent. at a fixed rate of interest, the government reserving the right to pay the capital at any convenient time. Suppose that the state, when it wishes to borrow, is obliged to pay eight per cent., and that these stocks, in the course of three years, should rise in the market 100 per cent. above par; the state would easily find capitalists, who would lend at the rate of four per cent. annually, and with this it could redeem the eight per cent. stocks. If, therefore, the state has reason to expect that the price of the stocks will rise, its best plan is to receive a fixed capital sum at such a rate of interest as it is obliged to give. But if it fears that the interests or the prices of the stocks will fall, it is for its advantage to procure the necessary money by the sale of stocks at the market price, because it may hope to redeem them at a reduced rate. Sometimes premiums, or the chances of a lottery, are employed to stimulate reluctant capitalists, and sometimes even force. If a government must have recourse to other means than those arising from the annuity or interest offered, it is a certain sign that it enjoys but a feeble credit, or that there is a want of capital. How fertile modern history is in loans of every kind, and into what an unhappy situation many states have fallen, by reason of them, is well known. In Austria, the proprietors of the stocks have been forced, several times, to advance further sums, to avoid losing what they had already lent. (See *National Debt.*)

Loanda, or **Loando**, or **St. Paul de Loanda**; a city of Angola, in a province of the same name, capital of the Portuguese possessions in this part of Africa; longitude 13° 22′ E.; latitude 8° 55′ S.: population, stated by Clarke at 5,000; by Hassel at 18,000. It is pleasantly situated on the declivity of a hill, near the seacoast, and the streets are wide and regular. It covers a large extent of ground, but is neither walled nor fortified. It is the seat of a bishop, and contains three convents. The port is safe and spacious; the country around pleasant and fertile, abounding in cattle, corn and fruits; provisions plentiful and cheap; but the water bad, and must be brought from a neighboring river, on an island opposite. The houses belonging to the Portuguese are built of stone; the houses of the natives are more numerous, but mean. The Jesuits officiate as priests, and preside over the schools.

Loango; a country of Western Africa, of limits somewhat vague. The country subject to the king of Loango extends from the Zaire or Congo, on the south, to cape St. Catharine, a coast of upwards of 400 miles; but Loango proper occupies only the middle part, excluding Mayomba on one side, and Malemba on the other. The climate is described as fine; rain of rare occurrence, and never violent, but dews abundant; the soil a red, stiff clay, and very fertile, but little cultivated; the grains are manioc, maize, and a species of pulse, called *msangen;* the sugar-cane grows to a great size; palm-trees are abundant; also potatoes and yams, and the finest fruits grow wild. Among the animals are tiger-cats, ounces, hyænas, hares, and antelopes. The country is thinly inhabited; the population is estimated by De Grandpré at 600,000. The inhabitants are very indolent, and live in the most simple manner. Their houses are formed of straw and junk, roofed with palm leaves. The government is despotic, and the dignity is transmitted only in the female line. Almost the only object for which Europeans resort to this coast is the trade in slaves. While Loango was in the height of its power, its port was almost the exclusive theatre of this trade. The trade has of late much diminished. (See Tuckey's *Expedition to the Congo.*)

Loango; a city, and the capital of Loango, on a river which forms a bay at its mouth, about six miles from the Atlantic; longitude, according to captain Tuckey, 12° 30′ E.; latitude 4° 40′ N. It is about four miles in circuit, containing only about 600 enclosures, in each of which there is a number of cottages; and the inhabitants are computed at 15,000. The land in the vicinity is very fertile, and the water excellent. The entrance of the bay is attended with some danger. The town is called also *Lovango*, *Loangiri*, *Banga*, and *Buali;* by the natives, *Borai*, or *Boori.*

Lobau, George Mouton, count, lieutenant-general, and, in 1830, commander of the national guards of Paris, one of the pupils of the French revolution of 1789, and a distinguished actor in that of July, 1830, was born in 1770, and designed for commercial pursuits. On the invasion of France, in 1792, he entered the military service, and obtained his first promotion on the Rhine. Having served with distinction in Italy, where he was dangerously wounded, he was created, by the first consul, Bonaparte, general of brigade, and afterwards accompanied the emperor in all his campaigns, in the capacity of aid. In 1807, he was wounded at Friedland, and promoted to the rank of general of division. His brilliant services in Spain, in 1808, and in Germany, obtained him his title of count. (See *Aspern.*) After having served in the Russian campaign, he was made prisoner in Dresden, in 1813, but set at liberty after the abdication of Napoleon. He rejoined the emperor during the hundred days, was named peer of France, received the command of a division, and distinguished himself at Waterloo. On the second restoration of the Bourbons, count Lobau was banished from the kingdom (see *Louis XVIII*), and he resided in Belgium till 1818, when he was allowed to return to France. During the revolution of 1830, he took an active part on the popular side, and, when Lafayette resigned the command of the national guards, was appointed (December 26) commander of those of Paris.

Lobeira, Vasco, author of the celebrated romance of *Amadis de Gaul*, was born at Porta, in Portugal, in the fourteenth century. In 1386, he was knighted on the field of battle, at Aljubarrota, by king Joam I. He died at Elvas, where he possessed an estate, in 1403. The original of his celebrated romance was preserved in the library of the duke of Aveiro, who suffered for the conspiracy against Joseph I; but whether still in existence or not, is doubtful. This romance has been claimed for France, it having been asserted that Lobeira was only a translator; but doctor Southey has succeeded in refuting that pretension. (See *Amadis.*)

Lobel, Martin de (Latinized, *Lobelius*), was born at Lille, in 1538, studied medicine at Montpellier, travelled through Italy, Switzerland, Germany, became physician to the prince of Orange, and was, at a later period, invited to England, as botanist, by king James. He died in 1616, at Highgate, near London. His chief works are *Stirpium adversaria nova*, with engravings (London, 1570, folio; several times reprinted; the last time, Frankfort, 1651, folio); *Plantarum seu Stirpium Historia cum Adversariorum Volumine*, with engravings (Antwerp, 1576, folio; in Dutch, ibid, 1581); *Icones Stirpium* (Antwerp, 1581, 4to.; also London, 1605, 4to.). After him, a genus of plants has been called *Lobelia.* All the species are poisonous; some very much so.

Lobelia; a genus of plants distinguished by the labiate corolla, and by having the five stamens united in the form of a cylinder, as in the *compositæ*. About 150 species are known, which are herbaceous or frutescent, having alternate leaves, and flowers disposed in terminal racemes. The juice in all is milky, and more or less acrid and caustic. Among the species inhabiting the U. States, the most remarkable are the three following :—The *L. syphilitica* is found in moist places throughout the Middle and Western States. It grows to the height of three or four feet, and bears large and beautiful flowers, of a fine blue color. It was, formerly, a celebrated remedy with the aborigines, and, as such, has been brought into notice among medical practitioners; but its virtues have been overrated, and it is now rarely employed. It, however, possesses diuretic properties.—The large scarlet flowers of the *L. cardinalis*, or cardinal flower, are conspicuous in the low grounds, and along the banks of streams, throughout the U. States. The brilliancy of the flowers has rendered this plant a favorite in the European gardens, where it has been cultivated for more than two centuries.—The *L. inflata*, or Indian tobacco, is an upland plant, often growing even in cultivated grounds, from Canada to Carolina. The flowers are very small, blue, and are succeeded by inflated capsules. It possesses emetic properties, and is an acrid and dangerous plant. It was employed as a medicine by the Indians, and has, of late, acquired some celebrity from being used by a certain class of empirics. Ten other species of *lobelia* inhabit the U. States.

Lobster (*astacus*). This well known crustaceous animal has already been cursorily mentioned under the head of *Crawfish* (q. v.), and it was there inadvertently stated, that the lobster, found on the American coast, was the *A. gammarus*, or, in other words, identical with the European species. It was so considered by most naturalists, until Mr. Say pointed out the differences between them. (See *Journ. Acad. Nat. Sci. Philad.*, i, 165.) He terms it *A. marinus*. Mr. Say observes that Seba, however, was aware that this species was distinct from the European, and figured it in his great work. They are exceedingly alike, though there are certain traits of difference, sufficient to authorize a separation. The habits of the American species are, as far as they have been observed, analogous to those of the *gammarus*. They are taken by means of pots or traps, made of strips or osiers, formed somewhat like a mouse-trap, baited with garbage, attached to a cord and buoy, and sunk by means of a weight. The European lobster having been more studied by naturalists, the following particulars respecting it have been obtained. Like the crabs, they change their crust annually. Previous to this process, they appear sick, languid and restless. They acquire the new shell in about three or four days, during which time, being perfectly defenceless, they become the prey, not only of fish, but also of such of their brethren as are not in the same condition. It is difficult to conceive how they are able to draw the muscles of their claws out of their hard covering. The fishermen say, that during the pining state of the animal, before casting its shell, the limb becomes contracted to such a degree as to be capable of being withdrawn through the joints and narrow passage near the body. Like all other crustaceous animals, they only increase in size whilst in a soft state. The circumstance of lobsters losing their claws on occasion of thunder-claps, or the sound of cannon, is well authenticated. The restoration of claws lost thus, or from their frequent combats with each other, in which the vanquished party generally leaves one of his limbs in his adversary's grasp, may be readily observed, as the new limb seldom, if ever, attains the size of the former. These animals are so sensible to the shock communicated to the fluid in which they live, by the firing of cannon, that it is said they wholly deserted New York bay, from this cause, during the war of independence. In the water, they are very rapid in their motions, and, when suddenly alarmed, can spring to a great distance. They attain their retreat in a rock with surprising dexterity, throwing themselves into a passage barely sufficient to permit their bodies to pass. They are extremely prolific: doctor Baster says that he counted 12,444 eggs under the tail of a female lobster, besides those that remained in the body unprotruded. The female deposits these eggs in the sand, where they are soon hatched.

Loch; the Scotch for *lake*.

Loch Katrine, or Catherine; a small lake of Scotland, in the county of Perth, in the Grampian hills, celebrated for the picturesque beauties of its shores. It has become famous as the scene of the Lady of the Lake. Bordering on it are the Trosachs, rough and stupendous mountains, full of wildness and rude grandeur. The access to the lake is through a narrow pass, about half a mile in length, "the Trosachs' rugged jaws."

Loch Leven. (See *Leven.*)

Loch Lomond; a lake of Scotland, in the county of Argyle. It communicates with the Clyde by a river, which joins the Clyde at Dumbarton, and is about 30 miles long, and, in some parts, 8 or 9 broad, and contains about 30 islands. This beautiful lake is surrounded by hills and mountains, and is celebrated for the grand and picturesque scenery of its shores. Its depth is various, in some parts 100 fathoms. It abounds in trout.

Lock; a well known instrument, used for fastening doors, chests, &c., generally opened by a key. The lock is reckoned the master-piece in smithery, a great deal of art and delicacy being required in contriving and varying the wards, springs, bolts, &c., and adjusting them to the places where they are to be used, and to the several occasions of using them. The principle on which all locks depend, is the application of a lever to an interior bolt, by means of a communication from without; so that, by means of the latter, the lever acts upon the bolt, and moves it in such a manner as to secure the lid or door from being opened by any pull or push from without. The security of locks, in general, therefore, depends on the number of impediments we can interpose betwixt the lever (the key) and the bolt which secures the door; and these impediments are well known by the name of *wards*, the number and intricacy of which are supposed to distinguish a good lock from a bad one. If these wards, however, do not, in an effectual manner, preclude the access of all other instruments besides the proper key, it is still possible for a mechanic, of equal skill with the lockmaker, to open it without the key, and thus to elude the labor of the other. Various complicated and difficult locks have been constructed by Messrs. Bramah, Taylor, Spears, and others. In a very ingenious lock, invented by Mr. Perkins, 24 small blocks of metal, of different sizes, are introduced, corresponding to the letters of the alphabet. Out of these, an indefinite number of combinations may be made. The person locking the door selects and places the blocks necessary to spell a particular word, known only to himself, and no other person, even if in possession of the key, can open the door, without a knowledge of the same word.

Locks. When a canal changes from one level to another of different elevation, the place where the change of level takes place, is commanded by a lock. Locks are tight, oblong enclosures, in the bed of the canal, furnished with gates at each end, which separate the higher from the lower parts of the canal. When a boat passes up the canal, the lower gates are opened, and the boat glides into the lock, after which the lower gates are shut. A sluice, communicating with the upper part of the canal, is then opened, and the lock rapidly fills with water, elevating the boat on its surface. When the lock is filled to the highest water level, the upper gates are opened, and the boat, being now on the level of the upper part of the canal, passes on its way. The reverse of this process is performed when the boat is descending the canal. Locks are made of stone or brick, sometimes of wood. The gates are commonly double, resembling folding doors. They meet each other, in most instances, at an obtuse angle, and the pressure of the water serves to keep them firmly in contact. Cast iron gates are sometimes used in England, curved in the form of a horizontal arch, with their convex side opposed to the water. In China, inclined planes are said to be used instead of locks, along which the boats are drawn up or let down. They have also been used in Europe, and on the Morris canal, in New Jersey.

Locke, John, one of the most eminent philosophers and valuable writers of his age and country, was born at Wrington, in Somersetshire, Aug. 29, 1632. His father, who had been bred to the law acted in the capacity of steward, or court-keeper, to colonel Alexander Popham, by whose interest, on the breaking out of the civil war, he became a captain in the service of parliament. The subject of this article was sent, at a proper age, to Westminster school, whence he was elected, in 1651, to Christ-church college, Oxford. Here he distinguished himself much by his application and proficiency; and, having taken the degree of B. A. in 1655, and of M. A. in 1658, he applied himself to the study of physic. In the year 1664, he accepted an offer to go abroad, in the capacity of secretary to sir William Swan, envoy from Charles II to the elector of Brandenburg, and other German princes; but he returned, in the course of a year, and resumed his studies with renewed ardor. In 1666, he was introduced to lord Ashley, afterwards the celebrated earl of Shaftesbury, to whom he became essentially serviceable in his medical capacity, and who formed so high an opinion of his general powers, that he prevailed upon him to take up his residence in his house, and urged him to apply his studies to politics and philosophy. By his acquaintance with this nobleman, Mr. Locke was introduced to the duke of Buckingham, the earl of Halifax, and others of the most eminent persons of their day. In 1668, at the request of the earl and countess of Northumberland, he accompanied them in a tour to France, and, on his return, was employed by lord Ashley, then chancellor of the exchequer, in drawing up the Fundamental Constitutions of Carolina. He also superintended the education of that nobleman's son. In 1670, he began to form the plan of his Essay on the Human Understanding, and, about the same time, was made a fellow of the royal society. In 1672, lord Ashley, having been created earl of Shaftesbury, and chancellor, appointed Mr. Locke secretary of presentations, which office, however, he lost the following year, when the earl was obliged to resign the seals. Being still president of the board of trade, that nobleman then made Mr. Locke secretary to the same; but, the commission being dissolved in 1674, he lost that appointment also. In the following year, he graduated as a bachelor of physic, and, being apprehensive of a consumption, travelled into France, and resided some time at Montpellier. In 1679, he returned to England, at the request of the earl of Shaftesbury, then again restored to power; and, in 1682, when that nobleman was obliged to retire to Holland, he accompanied him in his exile. On the death of his patron, in that country, aware how much he was disliked by the predominant arbitrary faction at home, he chose to remain abroad; and was, in consequence, accused of being the author of certain tracts against the English government; and, although these were afterwards discovered to be the work of another person, he was arbitrarily ejected from his studentship of Christchurch, by the king's command. Thus assailed, he continued abroad, nobly refusing to accept a pardon, which the celebrated William Penn undertook to procure for him, expressing himself, like the chancellor L'Hospital, in similar circumstances, ignorant of the crimes of which he had been declared guilty. In 1685, when Monmouth undertook his ill-concerted enterprise, the English envoy at the Hague demanded the person of Mr. Locke, and several others, which demand obliged him to conceal himself for nearly a year; but, in 1686, he again appeared in public, and formed a literary society at Amsterdam, in conjunction with Limborch, Leclerc and others. During the time of his concealment, he also wrote his first Letter concerning Toleration, which was printed at Gouda, in 1689, under the title of *Epistola de Tolerantia*, and was rapidly translated into Dutch, French and English. At the revolution, he returned to England, in the fleet which conveyed the princess of Orange, and, being deemed a sufferer for the principles on which it was established, he was made a commissioner of appeals, and was soon after gratified by the establishment of toleration by law. In 1690, he published his celebrated Essay concerning Human Understanding, which he had written in Holland. It was instantly attacked by various writers. It was even proposed, at a meeting of the heads of houses of the university of Oxford, to formally censure and discourage it; but nothing was finally resolved upon, but that each master should endeavor to prevent its being read in his college. Neither this, however, nor any other opposition, availed; the reputation, both of the work and of the author, increased throughout Europe; and, besides being translated into French and Latin, it had reached a fourth English edition, in 1700. In 1690, Locke published his second Letter on Toleration; and, in the same year, appeared his two Treatises on Government, in opposition to the principles of sir Robert Filmer, and of the whole passive-obedience school. He next wrote a pamphlet, entitled Some Considerations of the Consequences of lowering the Interest and Value of Money (1691, 8vo.), which was followed by other smaller pieces on the same subject. In 1692, he published a third Letter on Toleration, and, the following year, his Thoughts concerning Education. In 1695, he was made a commissioner of trade and plantations, and, in the same year, published his Reasonableness of Christianity, as delivered in the Scriptures, which being warmly attacked by doctor Edwards, in his Socinianism Unmasked, Locke followed, with a first and second Vindication, in which he defended himself in a masterly manner. The use made by Toland, and other latitudinarian writers, of the premises laid down in the Essay on the Human Understanding, at length produced an opponent in the celebrated bishop Stillingfleet, who, in his Defence of the Doctrine of the Trinity, censured some passages in Locke's Essay; and a controversy arose, in which the great reading and proficiency in ecclesiastical antiquities of the prelate yielded, in an argumentative contest, to the reasoning powers of the philosopher. With his publications in this controversy, which were distinguished by mildness and urbanity, Locke retired from the press, and, his asthmatic complaint increasing, he resigned his post of commissioner of trade and plantations, observing that he could not, in conscience, hold a situation, to which a considerable salary was attached, without performing the duties of it. From this time, he lived wholly in retirement, where he applied himself to the study of Scripture; while the sufferings incidental to his disorders were materially alleviated by the kind attentions and agreeable conversation of lady Masham, who was the daughter of the learned doctor Cudworth, and, for many years, his intimate friend. Locke continued nearly two years in a declining state, and at length expired in a manner correspondent with his piety, equanimity and rectitude, Oct. 28, 1704. He was buried at Oates, where there is a neat monument erected to his memory, with a modest Latin inscription indited by himself. The moral, social and political character of this eminent man, is sufficiently illustrated by the foregoing brief account of his life and labors; and the effect of his writings upon the opinions and even fortunes of mankind, is the best eulogium on his mental superiority. In the opinion of doctor Reed, he gave the first example in the English language, of writing on abstract subjects with simplicity and perspicuity. No author has more successfully pointed out the danger of ambiguous words, and of having indistinct notions on subjects of judgment and reasoning; while his observations on the various powers of the human understanding, on the use and abuse of words, and on the extent and limits of human knowledge, are drawn from an attentive reflection on the operations of his own mind. In order to study the human soul, he went neither to ancient nor to modern philosophers for advice, but, like Malebranche, he turned within himself, and, after having long contemplated his own mind, he gave his reflections to the world. Locke was a very acute thinker, and his labors will always be acknowledged with gratitude, in the history of philosophy; but, at the same time, it must be remembered, that, in attempting to analyze the human soul, as an anatomist proceeds in investigating a body, piece by piece, and to derive all ideas from experience, he has unintentionally supported materialism. His declaration, that God, by his omnipotence, can make matter capable of thinking, has been considered dangerous in a religious point of view. Locke's great work, his Essay on the Human Understanding, which he was 19 years in preparing, owes its existence to a dispute, at which he was present, and which he perceived to rest entirely on a verbal misunderstanding, and, considering this to be a common source of error, he was led to study the origin of ideas, &c. The influence of this work has rendered the empirical philosophy general, in England and France, though, in both countries, philosophers of a different school have appeared. (See *Cousin.*) Henry Lee and Norris (in Oxford) were among his earliest opponents. In France, Jean Leclerc (Clericus) distinguished himself particularly as a partisan of Locke; and 'sGravesande spread his philosophy, by compendiums, in Holland. Amidst the improvements in metaphysical studies, to which the Essay itself has mainly conduced, it will ever prove a valuable guide in the acquirement of the science of the human mind. His next great work, his two Treatises on Government, was opposed by the theorists of divine right and passive obedience (see *Legitimacy*), and by writers of Jacobitical tendencies; but it upholds the great principles, which may be deemed the constitutional doctrine of his country. It was a favorite work with the statesmen of the American revolution, by whom it is constantly appealed to in their constitutional arguments. His Reasonableness of Christianity maintains, that there is nothing contained in revealed religion inconsistent with reason, and that it is only necessary to believe that Jesus is the Messiah. His posthumous works, also, have caused him to be considered, by some, as a Socinian. Besides the works already mentioned, Locke left several MSS. behind him, from which his executors, sir Peter King and Mr. Anthony Collins, published, in 1706, his Paraphrase and Notes upon St. Paul's Epistles to the Galatians, Corinthians, Romans and Ephesians, with an Essay prefixed for the Understanding of St. Paul's Epistles, by a reference to St. Paul himself. In 1706, the same parties published Posthumous Works of Mr. Locke (8vo.), comprising a Treatise on the Conduct of the Understanding, an Examination of Malebranche's Opinion of seeing all Things in God. His works have been collected together, and frequently printed in 3 vols., folio, 4 vols., quarto, and, more lately, in 10 vols., 8vo., with a life prefixed, by Law, bishop of Carlisle. Some unpublished MSS. yet remain in possession of lord King, who has given to the public some valuable materials in his Life and Correspondence of John Locke (London, 1829).—See, also, Stewart's Philosophical Essays.

Locker; a kind of box, or chest, made along the side of a ship, to put or stow any thing in.—*Shot lockers;* strong frames of plank near the pump-well in the hold, in which the shot are put.

Lockman. (See *Lokman*, and *Fable*.)

Locomotion. The arts of locomotion are very well described in Bigelow's Technology (Boston, 1829), and the few remarks that follow are abridged from the first part of the article. The chief obstacles which oppose locomotion, or change of place, are gravity and friction, the last of which is, in most cases, a consequence of the first. Gravity confines all terrestrial bodies against the surface of the earth, with a force proportionate to the quantity of matter which composes them. Most kinds of mechanism, both natural and artificial, which assist locomotion, are arrangements for obviating the effects of gravity and friction. Animals that walk, obviate friction by substituting points of their bodies instead of large surfaces, and upon these points they turn, as upon centres, for the length of each step, raising themselves wholly or partly from the ground in successive arcs, instead of drawing themselves along the surface. As the feet move in separate lines, the body has also a lateral, vibratory motion. A man, in walking, puts down one foot before the other is raised, but not in running. Quadrupeds, in walking, have three feet upon the ground for most of the time; in trotting, only two. Animals which walk against gravity, as the common fly, the tree-toad, &c., support themselves by suction, using cavities on the under side of their feet, which they enlarge, at pleasure, till the pressure of the atmosphere causes them to adhere. In other respects their locomotion is effected like that of other walking animals. Birds perform the motion of flying by striking the air with the broad surface of their wings in a downward and backward direction, thus propelling the body upward and forward. After each stroke, the wings are contracted, or slightly turned, to lessen their resistance to the atmosphere, then raised, and spread anew. The downward stroke also, being more sudden than the upward, is more resisted by the atmosphere. The tail of birds serves as a rudder to direct the course upward or downward. When a bird sails in the air without moving the wings, it is done in some cases by the velocity previously acquired, and an oblique direction of the wings upward; in others, by a gradual descent, with the wings slightly turned, in an oblique direction, downward. Fishes, in swimming forward, are propelled chiefly by strokes of the tail, the extremity of which being bent into an oblique position, propels the body forward and laterally at the same time. The lateral motion is corrected by the next stroke, in the opposite direction, while the forward course continues. The fins serve partly to assist in swimming, but chiefly to balance the body, or keep it upright; for, the centre of gravity being nearest the back, a fish turns over, when it is dead or disabled.* Some other aquatic animals, as leeches, swim with a sinuous or undulating motion of the body, in which several parts at once are made to act obliquely against the water. Serpents, in like manner, advance by means of the winding or serpentine direction which they give to their bodies, and by which a succession of oblique forces are brought to act against the ground. Sir Everard Home is of opinion that serpents use their ribs in the manner of legs, and propel the body forwards by bringing the plates on the under surface of the body to act, successively, like feet against the ground. This he deduces from the anatomy of the animal, and from the movements which he perceived in suffering a large coluber to crawl over his hand. Some worms and larvæ of slow motion, extend a part of their body forwards, and draw up the rest to overtake it, some performing this motion in a direct line; others in curves. When land animals swim in water, they are supported, because their whole weight, with the lungs expanded with air, is less than that of an equal bulk of water. The head, however, or a part of it, must be kept above water, to enable the animal to breathe; and to effect this, and also to make progress in the water, the limbs are exerted, in successive impulses, against the fluid. Quadrupeds and birds swim with less effort than man, because the weight of the head, which is carried above water, is, in them, a smaller proportional part of the whole than it is in man. All animals are provided, by nature, with organs of locomotion best adapted to their structure and situation; and it is probable that no animal, man not being excepted, can exert his strength more advantageously by any other than the natural mode, in moving himself over the common surface of the ground.* Thus walking cars, velocipedes, &c., although they may enable a man to increase his velocity, in favorable situations, for a short time, yet they actually require an increased expenditure of power, for the purpose of transporting the machine made use of, in addition to the weight of the body. When, however, a great additional load is to be transported with the body, a man, or animal, may derive much assistance from mechanical arrangements. For moving weights over the common ground, with its ordinary asperities and inequalities of substance and structure, no piece of inert mechanism is so favorably adapted as the wheel-carriage. It was introduced into use in very early ages. Wheels diminish friction, and also surmount obstacles or inequalities of the road, with more advantage than bodies of any other form, in their place, could do. The friction is diminished by transferring it from the surface of the ground to the centre of the wheel, or, rather, to the place of contact between the axletree and the box of the wheel; so that it is lessened by the mechanical advantage of the lever, in the proportion which the diameter of the axletree bears to the diameter of the wheel. The rubbing surfaces, also, being kept polished and smeared with some unctuous substance, are in the best possible condition to resist friction. In like manner, the common obstacles that present themselves in the public roads, are surmounted by a wheel with peculiar facility. As soon as the wheel strikes against a stone or similar hard body, it is converted into a lever for lifting the load over the resisting object. If an obstacle eight or ten inches in height were presented to the body of a carriage unprovided with wheels, it would stop its progress, or subject it to such violence as would endanger its safety. But by the action of a wheel, the load is lifted, and its centre of gravity passes over in the direction of an easy arc, the obstacle furnishing the fulcrum on which the lever acts. Rollers placed under a heavy body diminish the friction in a greater degree than wheels, provided they are true spheres or cylinders, without any axis on which they are constrained to move; but a cylindrical roller occasions friction, whenever its path deviates in the least from a straight line. The mechanical advantages of a wheel are proportionate to its size, and the larger it is, the more effectually does it diminish the ordinary resistances. A large wheel will surmount stones and similar obstacles better than a small one, since the arm of the lever on which the force acts is longer, and the curve described by the centre of the load is the arc of a larger circle, and, of course, the ascent is more gradual and easy. In passing over holes, ruts or excavations, also, a large wheel sinks less than a small one, and consequently occasions less jolting and expenditure of power. The wear also of large wheels is less than that of small ones, for if we suppose a wheel to be three feet in diameter, it will turn round twice, while one of six feet in diameter turns round once; so that its tire will come twice as often in contact with the ground, and its spokes will twice as often have to support the weight of the load. In practice, however, it is found necessary to confine the size of wheels within certain limits, partly because the materials used would make wheels of great size heavy and cumbersome, since the separate parts would necessarily be of large proportions to have the requisite strength, and partly because they would be disproportioned to the size of the animals employed in draught, and compel them to pull obliquely downwards, and therefore to expend a part of their force in acting against the ground.

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* The swimming-bladder, which exists in most fishes, though not in all, is supposed to have an agency in adapting the specific gravity of the fish to the particular depth in which it resides. The power of the animal to rise or sink, by altering the dimensions of this organ, has been, with some reason, disputed.

LOCOMOTIVE ENGINE is that which is calculated to produce locomotion, or motion from place to place. (See *Steam-Engine.*)

LOCRIS was a country of Middle Greece, whose inhabitants, the Locrians, were among the oldest Grecian people. There were four branches of them—the Epicnemidian, the Opuntian, Ozolian, and Epizephyrian Locrians. The last were a colony from the Ozolian stock, and lived in Lower Italy. Their capital, Locri, was one of the most powerful, splendid and wealthy cities of Magna Græcia.

LOCUST. The misapplication of popular appellations, and the mutations of entomology, have introduced some confusion in regard to the scientific names of many insects. Our American *cicadæ* are popularly known here both by the names of *harvest-fly* and *locust*; the latter term, however, is incorrectly applied. Under the generic name *locusta* is included, by several modern entomologists, the devouring locusts of the eastern continent, and the common *grasshoppers* (as they are here called) of our country. These entomologists use the term in nearly the same sense as Linnæus, who affixed it to a group of his great genus *gryllus*, which constitutes the genus *gryllus proper* of Fabricius. The grasshopper may be thus characterized. The wings and wing-cases are applied obliquely to the sides of the body in repose; the antennæ are short, and do not taper towards the ends; the feet have only three joints; and the tail is not furnished with a projecting oviduct, or piercer, for the deposition of the eggs. These insects have the hind legs formed for leaping, and the males produce a stridulous sound, by scraping these legs against their wing-cases. The female deposits her eggs in the earth, and the young survive the winter in the larvæ state, concealed among the decayed vegetation of the surface. They pass through an imperfect metamorphosis, for both larvæ and pupæ resemble, somewhat, the perfect insects in form, are active, and take food in the same way, but are destitute of wings. In all stages, they are herbivorous, and sometimes do immense injury to vegetation. Our salt marshes harbor an innumerable host, which not unfrequently strips them of every blade of grass; or, when a scanty crop is gathered into the barn, the hay is so filled with the putrescent carcasses of these grasshoppers, or locusts, as to be highly offensive, and totally unfit for forage. In some sections of our country, they occasionally appear in such numbers as to fill the air in clouds, and wherever they alight they devour every green thing in their path. It is stated, on good authority, that, more than once, when they visited some parts of New England, they not only ate up all the grass in the fields, but actually attacked clothing and fences to appease their insatiable hunger. Some workmen, employed in raising the steeple of a church, in Williamstown, Massachusetts, were, while standing near the vane, covered by them, and saw, at the same time, vast swarms flying at a great height far above their heads. These swarms are said to return after a short migration, and perish on the very grounds they have ravaged. (See Dwight's *Travels*.) Many of these insects are ornamented with various beautiful colors, particularly on the wings, which, however, in repose, are not visible, being folded like a fan, and covered by the long, narrow wing-cases. One of the largest and most common American species is the *locusta Carolina* of Linnæus. It is about one inch and three quarters in length, and the wings are of a deep black color, surrounded with a broad yellow border. The most celebrated species of grasshopper is the *gryllus migratorius* (migratory locust). Of all animals capable of adding to the calamities of mankind, by destroying the vegetable products of the earth, the migratory locusts would seem to possess the most formidable powers of destruction. In Syria, Egypt, and almost all the south of Asia, these insects make their appearance in legions, and carry desolation with them, in a few hours changing the most fertile provinces into barren deserts, and darkening the air by their numbers. Happily for mankind, this calamity is not frequently repeated, for it is the inevitable precursor of famine, and its horrible consequences. The annals of most of the southern Asiatic climates are filled with accounts of the devastations produced by locusts. They seldom visit Europe in such swarms, though they are occasionally formidable to the agriculturist. Even when dead, they are still productive of evil consequences, since the putrefaction which arises from their inconceivable number, is so great, that it is justly regarded as the cause of some of those desolating pestilences which almost depopulate whole districts of country. When locusts thus make their appearance, they are said to have a leader, whose flight they observe, and to whose motions they pay a strict regard. We are told that nearly as much damage is occasioned by what they touch, as by what they devour. Their bite is thought to contaminate the plants, and either to destroy or greatly weaken their vegetation. Of the innumerable multitudes in which they occur, scarcely an adequate conception can be formed. Barrow (*Travels*, &c.) states that, in Southern Africa, the whole surface of the ground might literally be said to be covered with them for an area of 2000 square miles. The water of a very wide river was scarcely visible on account of the dead carcasses that floated on the surface. When the larvæ (for these are much more voracious than the perfect insects) are on a march during the day, it is utterly impossible to turn the direction of the troop, which is generally with the wind. In some parts of the world, these insects are used for food. For this purpose, they are caught in nets, and, when a sufficient number is procured, they are roasted over a slow fire, in an earthen vessel, till the wings and legs drop off; when thus prepared, they are said to taste like crawfish. Mr. Adanson (*Voyage to Senegal*) says, however, that he would willingly resign whole armies of locusts for the meanest fish. The locust constituted a common food among the Jews, and Moses has specified the different kinds which they were permitted to eat. "Even these thou mayest eat; the locust after his kind; the bald locust after his kind; the beetle after his kind; and the grasshopper after his kind." (*Levit.* xi, v. 22.)

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* This remark, of course, does not apply to situations in which friction is obviated, as upon water, ice, rail-roads, &c.

The popular term *grasshopper* is also applied, and with more propriety, to insects in another group of the *grylli*—the *tettigoniæ* of Linnæus (*locusta* of Fabricius). They are distinguished from the locusts of the preceding section, by their very long, bristle-shaped, or tapering antennæ, and by having four joints to their feet, and an exserted oviduct. The latter instrument often has the form of a curved sword or sickle, and is used in preparing a hole, and conveying the eggs to their appropriate *nidus* beneath the soil. These insects have long, slender hind legs, formed for leaping; but the males do not play with them against their wing-cases, for the production of sounds. Their musical organs consist of a pair of frames, within each of which is stretched a transparent membrane. These tabourets are affixed to that part of the base of each wing-case which laps on the top of the back, and one lies directly over and in contact with the other; so that, whenever the wing-cases are opened and shut, the frames grate together, and, as often as the shuffling motion is repeated, a grating sound is produced. These musical grasshoppers are usually of a green color, and are nocturnal in their habits. During the day-time, they conceal themselves in the grass or the foliage of trees; but at night, they quit their lurking places, and the joyous male commences the song of love with which he recreates his silent partner. It would be well to restrict the popular appellation *grasshoppers* to these insects, which have been distributed into several modern genera. Two only need here be mentioned, viz. *conocephalus* (Thunberg), [*acrida*, Kirby], including the species whose head terminates in front in a conical projection, and *pterophylla* (Kirby), whose head is obtuse, and not produced in front. The latter genus contains the well-known insect, called, from its note, *katy-did*, *pterophylla concava* (*locusta concava*, Say). Its large, oblong-oval, concave wing-cases, inwrap the abdomen, and meet at their edges above and below somewhat like the two sides or valves of a pea-pod. Perched on the topmost twig of a tree, the insect begins his nocturnal call by separating, closing, and re-opening his wing-cases. The friction of the tabouret-frames upon each other, thrice, produces three distinct notes, which is the usual number; occasionally, only two are given, when the wing-cases are merely opened and shut once. The mechanism of these organs reverberates, and increases the sound to such a degree, that it may be heard, in the stillness of the night, at the distance of nearly a quarter of a mile. At intervals of three or four minutes, he repeats his obstreperous babble, while rival songsters echo the notes, and the woods resound with the call of *katy-did, she did*, the live-long night. The *tettigoniæ* of Linnæus, or grasshoppers above-mentioned, are not to be confounded with the insects referred to the modern genus *tettigonia* of Olivier, Lamarck and Latreille. The former, with all the *grylli* of Linnæus, have jaws for masticating their food, and belong to the order *orthoptera*; while the latter, with the *cicada* or *harvest-fly* (misnamed *locust*), have suctorious tubes, for puncturing plants and imbibing their juices, and belong to the order *omoptera*. In the genus *cicada*, the antennæ are six-jointed; there are three ocelli, and the legs are not adapted for leaping. In *tettigonia*, the antennæ are three-jointed; there are only two ocelli, the thorax is transverse, not produced behind, and the legs are formed for leaping. To the genus *tettigonia* (Olivier) may be referred the minute insect which attacks the grape vine, and injures it to a great extent by noxious punctures, and the exhaustion of its sap. When the leaves of this valuable plant are agitated, the little *tettigoniæ* leap or fly from them in swarms. The infested leaves soon become yellow, sickly, and, losing their vitality, give to the plant, in midsummer, the aspect it assumes, naturally, at the approach of winter. On turning up the leaves cautiously, the insects will be seen busily employed upon the under side, with their proboscis thrust into the tender epidermis. These insects pass through all their metamorphoses, which are imperfect, upon the plant; the wingless larvæ and pupæ, having a general resemblance to the perfect insects, feed together in the same manner, and their innumerable white cast skins will be found adhering to every part of the leaves. This species survives the winter in the perfect state, hybernating beneath sticks, stones, and among the roots of grass. It may be called *tettigonia vitis* (Harris). It is, in its perfect state, nearly one tenth of an inch long; of a straw color, with two broad, scarlet bands across the wing-cases, one at the base and the other on the middle, and the tips of the wing-cases are blackish.—The *cicada tettigonia* (Fab.), popularly misnamed *locust*, and found in various parts of the world, subsists on the leaves of trees and other vegetable substances. These insects are furnished with a hard proboscis, capable of boring wood. They are well known from the peculiar noise made by the males. The instruments for this are situated on each side of the base of the abdomen, and each is covered by a kind of cartilaginous lamina. The cavity which contains these is divided by a triangular partition. Examined from its internal side, each cell presents, anteriorly, a white and plaited membrane, and below this, a tense, thin, transparent lamina, termed, by Réaumur, the *mirror*. Viewed from the external side, there will be seen another plaited membrane on each side, which is acted on by a powerful muscle, composed of a great number of straight and parallel fibres; this membrane is the *drum*. The muscles, in rapidly contracting and relaxing, act on this drum, and thus produce the noise. It is said, that in some species, in tropical climates, this is very powerful. Mr. Smeathman speaks of some of these insects, whose notes can be heard at the distance of half a mile. The most remarkable species is the 17 years locust (*C. septemdecim*), so common, in particular seasons, in some parts of the U. States. These insects emerge from the ground towards the end of April, and always during the night. On their first coming out, they are in the pupa state; but the back soon bursts, and the perfect fly appears. They begin to lay eggs about the end of May; these are deposited in close lines of two inches long, in the tender twigs of trees. As soon as the young attain their growth, in the grub state, they fall to the ground, and make their way two or three feet underneath the surface, in order to undergo their change into the pupa form. Soon after attaining their last transformation, they are found in great numbers over large districts of country. They appear about every 17 years, though it is highly probable, that the periods of their return vary according to the heat of the climate, and other circumstances. These insects have been known to make their appearance in the city of Philadelphia in great numbers, penetrating from their subterranean residence, between the bricks of a pavement. Notwithstanding the usual idea, they are in no way injurious to vegetation, except from the damage done by the female in depositing her eggs. This insect is the favorite food of various species of animals. Immense numbers are destroyed by the hog, before they emerge from the ground; they are, also, when in their perfect state, eagerly devoured by squirrels. Some of the larger birds are also fond of them. The Indians likewise consider them as a delicate food when fried. In New Jersey, they have been converted into soap. It is stated, on good authority, that they never light on the pine, nor does the female deposit her eggs in this tribe of trees. There are many other species in the U. States, which have been described by Mr. Say, in the Journ. Acad. Nat. Sci., Philadelphia. (See Barton's *Medical and Physical Journal*, &c.)

Locust (*robinia pseudacacia*). This valuable and ornamental tree, which is so frequently cultivated in the Atlantic States, and which is highly prized in Europe, grows wild in great profusion among the Alleghany mountains, and throughout the Western States, even to the borders of the sandy plains which skirt the base of the Rocky mountains. When in bloom, the large, pendulous racemes of fragrant, white flowers, contrasting with the light-green foliage, produce a fine effect, and give this tree a rank among the most ornamental. The leaves are pinnate, and the leaflets very thin and smooth. The flowers, resembling in form those of the pea, diffuse a delicious perfume, and are succeeded by a flat pod. The branches and young stems are usually armed with thorns. The wood is compact, hard, capable of receiving a fine polish, and has the valuable property of resisting decay longer than almost any other. The color is greenish-yellow, with brown streaks. Locust-posts are consumed in enormous quantities, and are every where preferred, when they can be obtained. This wood is also very much employed in ship-building, in the upper and lower parts of the frame, together with the white and live oaks and red cedar; but it is difficult, in the Atlantic ports, to procure stocks of sufficient dimensions. For tree-nails, it is preferred to all other kinds of wood, as it acquires extreme hardness with age, and considerable quantities of these are annually exported to Great Britain. It is also employed by turners, and, from its fine grain and lustre, forms a very good sub stitute for box. The locust grows very rapidly, but, when cultivated in the Atlantic states, it is found to be exceedingly liable to the attacks of an insect, which, by boring into the wood in various directions, weakens the tree so much, that it is easily broken by the wind. In various parts of Europe, great attention has been paid to the propagation of this tree, for ornament as well as for its useful properties, and its cultivation is further encouraged by the absence of the destroying insect above-mentioned. The usual stature of the locust is 40 or 45 feet, but, in the fertile regions of the south-west, it attains much greater dimensions, sometimes reaching the height of 80 feet, with a trunk 4 feet in diameter.—The *R. viscosa*, a smaller tree than the common locust, from which it is distinguished by its rose-colored flowers, and by having the young branches covered with a viscous substance, is, in its natural state, confined to the south-western parts of the Alleghany mountains. It usually does not exceed 40 feet in height, with a trunk 12 inches in diameter, and is a more ornamental tree than even the preceding. The properties of the wood are very similar to those of the common species, and it will bear cultivation in the same climates.—The *R. hispida* is also a native of the south-western ranges of the Alleghanies. It is a shrub with very hispid branches, often cultivated in our gardens on account of its very large and beautiful rose-colored flowers, which, however, like those of the *R. viscosa*, are inodorous.—A fourth species of *robinia* is said to exist within or near the basin of the Red river, but, with respect to its character, botanists are, at present, entirely uninformed. This genus is thus peculiar to North America.

Loder, Ferdinand Christian von, an anatomist and philosophical physician, and physician to the emperor of Russia, was born at Riga, 1753, and studied medicine at Göttingen. In 1778, he took the degree of doctor of medicine and surgery, and was immediately appointed professor in the medical faculty at Jena. He then travelled two years in France, Holland and England, and formed an acquaintance with the most distinguished men of science. In 1782, he returned to Jena, where he established an anatomical theatre, a lying-in hospital, and a cabinet for the natural sciences. He likewise founded a medico-chirurgical clinicum, in which Hufeland and others assisted. He then became physician to the grand-duke of Weimar, and delivered lectures on several branches of medicine. In 1803, he entered the Prussian service, and was appointed ordinary professor of medicine in the university of Halle. In 1806, he declined an invitation to enter the service of the king of Westphalia, to whom Halle then belonged, and went to St. Petersburg. The emperor Alexander appointed him one of his physicians in 1810, after he had been raised to the dignity of a noble by the king of Prussia. Loder settled in Moscow; in 1812, was charged with making provision for the wounded; and, when the French occupied the city, he established hospitals for 600 officers and 31,000 privates, in different towns, the direction of which he held for eight months. In 1813, the great military hospital at Moscow was intrusted to him; but, in 1817, he resigned this trust, though he continued to be active in the service of the hospitals. In 1818, he was employed in instituting an anatomical theatre at Moscow, at the expense of the imperial treasury. Six days in the week, for ten months in the year, he lectured in Latin, besides devoting much of his time to the church, the schools, the practice of medicine, and public affairs. Besides his translations of Park, Johnson, &c., and many academical dissertations and programs in Latin, at Jena and Halle, he has written *Anatomisches Handbuch* (2d edition, Jena, 1800); *Anfangsgründe der Medic. Anthropologie und Gerichtl. Arzneiwissenschaften* (3d edition, Weimar, 1800); *Journal für die Chirurgie, Geburtshülfe und Gerichtliche Arzneikunde* (vol. 1—4, Jena, 1797—1804); *Tabulæ Anatomicæ* (Latin and German, Weimar, 1803); *Elementa Anatomiæ hum. Corp.* (1 vol., Moscow, Riga and Leipsic, 1822); and other works.

Lodge. This word, with several symbols and ceremonies, was taken from the corporations of stone-cutters and masons, by the freemasons. The former called the place where they assembled a *lodge*; and, in freemasonry, *lodge* signifies the place of meeting; and hence that body of masons, with necessary officers, &c., who meet at such place. Each lodge is distinguished by its particular name, with the addition of the name of the place where it holds its meeting. (For further information, see *Masonry*.)

Lodi, a well-built town, since 1814 the chief town of the province of Lodi in the government of Lombardy, in the Lombardo-Venetian kingdom, lies on the Adda, in a fertile territory; lon. 9° 31′ E.; lat. 45° 19′ N.; population, 17,800. The bishopric is subject to the archbishop of

Milan. The town contains a strong citadel. The celebrated Parmesan cheese is made, not at Parma, but at and about the town of Lodi alone, and is considered the best in Italy. The manufactures of earthen ware are also celebrated. It was at this place that general Bonaparte gained the famous victory, May 10, 1796, over the Austrians, under Beaulieu. They had passed the Adda, evacuated Lodi, and taken a very strong position, defended by 30 pieces of cannon, which could be approached only by a narrow bridge over the Adda. Bonaparte formed a part of his forces into a close column, brought his whole artillery into play, and charged at a quick step. The slaughter was dreadful, as the Austrian artillery swept down whole ranks at once on the bridge. The French wavered; but, at this critical moment, the French generals Berthier, Masséna, Cervoni, Lannes, &c., placed themselves at the head of the column, forced their way over the bridge, and took the Austrian batteries. The Austrians fought bravely; both armies struggled with the greatest obstinacy, and victory long remained in suspense, till the division of Augereau came up, and decided the fate of the battle. The Austrians, driven from their post, lost a part of their artillery and over 3000 men; but Beaulieu saved the honor of the Austrian arms by a retreat conducted with coolness. The French loss was not less. If they did not lose 4000 men, as the Austrians stated, they certainly lost more than 2000, which was their own account. Men of science have censured both generals,—Bonaparte, for taking a post with an immense sacrifice, of which, say they, he might have been master, in 24 hours more, with comparative ease; and Beaulieu, for having evacuated the town of Lodi in such haste, as to neglect breaking down the bridge, by which alone the enemy could approach his position; but it is idle to dispute with Raphael about perspective. Lodi remains one of the most striking military achievements of Napoleon; not merely from the personal courage which he displayed, but from the boldness with which the action was planned, and the energy with which it was executed. At Lodi, Bonaparte received the title of *petit caporal* (little corporal). (See Thiers's *Histoire de la Révolution Française* (vol. 8th); Botta's *Histoire de l'Italie de* 1789 *à* 1814.)

Log; a machine used to measure the rate of a ship's velocity through the water. For this purpose, there are several inventions, but the one most generally used is the following, called the *common log*. It is a piece of thin board, forming the quadrant of a circle of about six inches radius, and balanced by a small plate of lead, nailed on the circular part, so as to swim perpendicularly in the water, with the greater part immersed. The log-line is fastened to the log by means of two legs, one of which is knotted, through a hole at one corner, while the other is attached to a pin, fixed in a hole at the other corner, so as to draw out occasionally. The log-line, being divided into certain spaces, which are in proportion to an equal number of geographical miles, as a half or quarter minute is to an hour of time, is wound about a reel. The whole is employed to measure the ship's head-way in the following manner: The reel being held by one man, and the half-minute glass by another, the mate of the watch fixes the pin, and throws the log over the stern, which, swimming perpendicularly, feels an immediate resistance, and is considered as fixed, the line being slackened over the stern, to prevent the pin coming out. The knots are measured from a mark on the line, at the distance of 12 or 15 fathoms from the log. The glass is therefore turned at the instant that the mark passes over the stern; and, as soon as the sand in the glass has run out, the line is stopped. The water, then being on the log, dislodges the pin, so that the board, now presenting only its edge to the water, is easily drawn aboard. The number of knots and fathoms which had run off at the expiration of the glass, determines the ship's velocity. The half-minute glass, and divisions on the line, should be frequently measured, to determine any variation in either of them, and to make allowance accordingly. If the glass runs 30 seconds, the distance between the knots should be 50 feet. When it runs more or less, it should therefore be corrected by the following analogy: As 30 is to 50, so is the number of seconds of the glass to the distance between the knots upon the line. As the heat or moisture of the weather has often a considerable effect on the glass, so as to make it run slower or faster, it should be frequently tried by the vibration of a pendulum. As many accidents attend a ship during a day's sailing, such as the variableness of winds, the different quantity of sail carried, &c., it will be necessary to heave the log at every alteration, and even if no alteration be perceptible, yet it ought to be constantly heaved. The inventor of this simple but valuable device is not known, and no mention of it occurs till the year 1607, in an East India voyage, published by Purchas.

Log-Board; two boards shutting together like a book, and divided into several columns, containing the hours of the day and night, the direction of the winds, and the course of the ship, with all the material occurrences that happen during the 24 hours, or from noon to noon, together with the latitude by observation. From this table, the officers work the ship's way, and compile their journals. The whole, being written with chalk, is rubbed out every day at noon.

Log-Book; a book into which the contents of the log-board is daily transcribed at noon, together with every circumstance, deserving notice, that may happen to the ship, or within her cognizance, either at sea, or in a harbor, &c. The intermediate divisions or watches of a log-book, containing four hours each, are usually signed by the commanding officer thereof, in ships of war or East Indiamen.

Log-Line; the line which is fastened to the log (q. v.).

Logan, James; born at Lurgan, in Ireland, Oct. 20, 1674, of Scottish parents. At the age of 13 years, having learned Latin, Greek, and some Hebrew, he was put apprentice to a linen-draper in Dublin; but, the country being involved in much confusion by the war of the revolution (1688), he returned to his parents, at Bristol, in England, where he devoted all the time which he could command to the improvement of his mind. In his 16th year, having happily met with a small book on mathematics, he made himself master of it without any manner of instruction. Having, also, further improved himself in the Greek and Hebrew, he acquired the French, Italian and Spanish languages. He was engaged in a trade between Dublin and Bristol, when Willian Penn made proposals to him to accompany him to Pennsylvania, as his secretary, which he accepted, and landed, with the proprietor, in Philadelphia, in the beginning of December, 1699. In less than two years, William Penn returned to England, and left his secretary invested with many important offices, which he discharged with fidelity and judgment. He filled the offices of provincial secretary, commissioner of property, chief justice, and, upon the demise of governor Gordon, governed the province for two years as president of the council. He had, for a long time, earnestly solicited from the proprietary family a release from the fatiguing care of their business; but, even after this release, he was constantly consulted and appealed to in difficulty. And the quiet and good government of the province, for a number of years, was due to his prudence and experience. He lived about 20 years at Stenton, enjoying literary leisure, corresponding with eminent men in various countries, and engaged in collecting that library which he bequeathed to the public. He was also the author of several learned works. His *Experimenta Meletemata de Plantarum Generatione* entitles its author to be ranked among the earliest improvers of botany. It was written in 1739. He corresponded with the great Swedish botanist. The aborigines, of whose relations with the government of Pennsylvania he had the chief management, paid an affecting tribute to his worth, when, in his old age, they entreated his attendance, on their behalf, at a treaty held in Philadelphia, 1742, where they publicly testified by their chief, Cannassatego, their satisfaction for his services, calling him a wise and good man, and expressing their hope that, when his soul ascended to God, one just like him might be found for the good of the province, and their benefit. He was a man of uncommon natural and acquired abilities, of great wisdom, moderation and prudence; well acquainted with the world and mankind, as well as with books; of unblemished morals, and inflexible integrity. He died at Stenton, near Philadelphia, Oct. 31, 1751, having just completed his 77th year.

Logan, George, doctor, son of William and grandson of James Logan, was born at Stenton, near Philadelphia, Sept. 9, 1753. He was sent to England for his education when very young, and, on his return, served an apprenticeship with John Reynolds, merchant of Philadelphia. He had early a great desire to study medicine, which he undertook after he had attained the years of manhood. After spending three years at the medical school of Edinburgh, he travelled through France, Italy, Germany and Holland, and returned to his own country in 1779. Here he applied himself to agriculture with success, and was one of the first who made experiments with gypsum as a manure. He was, in a few years, elected to the legislature, and served in several sessions. His character, as a representative, was marked by strict integrity, and an adherence to what he believed to be the public benefit. The public mind being much agitated, on account of the French revolution, and the violent ascendency of party spirit, and the nation standing on the brink of a war with France, he embarked for that country in June, 1798, in order to try to prevent such an issue. For this step he was denounced as a parricide to his country, and loaded with the utmost abuse. But he succeeded in his intentions. Upon his arrival at Hamburg, he found that all entrance into the French territory was interdicted to American citizens; yet, by the friendly interference of Lafayette in his favor, he obtained a passport from the French *chargé d'affaires*, and proceeded to Paris, where he heard that Elbridge Gerry (q. v.), the last of our commissioners, had left that city for the U. States, that an embargo had been laid on all our shipping in French ports, that several hundreds of our seamen were confined in French prisons, and that all negotiation was at an end. Finding that he could not get introduced to the chief director, Merlin, then the highest functionary in France, by means of Talleyrand,—who, nevertheless, received doctor Logan himself with courtier-like complacency, and used every art to sound what was his message or intentions, in vain,—doctor Logan introduced himself to M. Schimmelpennick, the Batavian minister, who presented him to Merlin, by whom he was very cordially received. In the visits which he made him, he succeeded in convincing the director of the impolicy of the measures pursued by France towards this country, and, finally, obtained a decree, raising the embargo, and liberating our seamen, and giving, through the American consul-general, assurances to our government that they desired to renew their former amity and friendship with the U. States. He returned to the U. States in 1798, and published, in the Aurora of Jan. 12 (date of his Letter to the Public), 1799, a justification of himself, most decidedly repelling the charge of having been sent to France by a faction, &c. Directly after his return, the law familiarly called *Logan's law*, was enacted by congress, and a negotiation was entered upon which terminated in a peace with France. Mr. Logan sat in the seventh and eighth congresses, from December, 1801, to March, 1807, as senator from Pennsylvania, and might have continued longer in that station, but he declined a reëlection. In 1810, he visited England, with the same philanthropic desire of preserving peace between the two countries. Here, though he failed in effecting the good which he had so much at heart, yet his reception, by men of the highest respectability of both parties, was highly flattering. He was exceedingly grieved at the war which followed. His health gradually declined for some years, and he died April 9, 1821.

Logarithm (from the Greek λόγος, proportion, and ἀριθμός, number). "The logarithms of numbers are the exponents of the different powers to which a constant number must be raised, in order to be equal to those numbers; the principles, therefore, which apply to exponents in general, apply to logarithms." To constitute a logarithm, it is necessary that the exponent should refer to a system or series. These exponents, therefore, constitute a series of numbers in arithmetical proportion, corresponding to as many others in geometrical proportion. Take, for instance, the series $10^1=10$; $10^2=100$; $10^3=1000$; $10^4=10{,}000$: then we have the logarithm of 10=1; logarithm, 100=2; logarithm, 1000=3; logarithm, 10,000=4, &c. Perhaps the definition of a logarithm may be more scientifically expressed thus: *Logarithm* is a mathematical term for a number by which the magnitude of a certain numerical ratio is expressed in reference to a fundamental ratio. The value of a ratio becomes known to us by the comparison of two numbers, and is expressed by a number called the *quotient* of the ratio; for instance, 12:4 is expressed by 3, or 18:9 by 2; 3 and 2 being called the *quotients* of the two proportions, 12:4 and 18:9. If we now imagine a series of proportions, which have all the same value or quotient, as, for instance, 1 to 3, 3 to 9, 9 to 27, 27 to 81, &c. (in which 9 and 3, 27 and 9, 81 and 27, are in the same ratio as 3 and 1), and if we at the same time adopt the ratio 3 to 1, as the fundamental ratio (or the unit of these ratios), then 9 to 1 is the double of this ratio, 27 to 1 the triple, 81 to 1 the quadruple, and so on. The numbers 1, 2, 3, 4, which indicate the value of such ratios, in respect to the fundamental ratio, are called *logarithms*. If, therefore, in this case, 1 is the logarithm of 3, 2 must be the logarithm of 9, 3 of 27, 4 of 81, &c. If we adopt, however, the ratio of 4:1 as the fundamental one, and hence 1 as the logarithm of 4, then 2 would be the logarithm of 16, 3 of 64, &c. The logarithms of the numbers which lie between, must be fractions, and are to be calculated and put in a table. A table of logarithms, made according to an assumed basis or fundamental ratio, of all numbers to a certain limit, is called a *logarithmic system*. The most common, at present, is that of Briggs, in which the fundamental basis is 10 to 1; hence 1 is the logarithm of 10, 2 of 100, 3 of 1000, 4 of 10,000, &c. It is evident that all logarithms of numbers between 1 and 10, must be more than 0, yet less than 1, i. e. a fraction; thus the logarithm of 6 is 0.7781513. In the same way, the logarithms of the numbers between 10 and 100 must be more than 1, but less than 2, &c.; thus the logarithm of 95 is = 1.9777236. All logarithms of the numbers between 0, 10, 100, 1000, &c., are arranged in tables, the use of which, particularly in calculations with large numbers, is very great. The process is simple and easy. If there are numbers to be multiplied, we only have to add the logarithms; if the numbers are to be divided, the logarithms are merely to be subtracted; if numbers are to be raised to powers, their logarithms are multiplied; if roots are to be extracted, the logarithms are merely to be divided by the exponent of the root. In a table of logarithms, the integer figure is called the *index* or *characteristic*. The decimals are called, by the Germans and Italians, the *mantissa*. In general, the logarithms of the system in which 1 indicates 10, are called *common* or *Briggs's logarithms*. The properties of logarithms, and some of their uses, were taken notice of by Stiefel or Stifelius, a German clergyman, who wrote as early as 1530; but the use of them in trigonometry was discovered by John Napier, a Scotch baron, and made known by him in a work published at Edinburgh, in 1614. Logarithmic tables are of great value, not only to mathematicians, but to all who have to make calculations with large numbers. The best logarithmical tables are those of Vega (q. v.) and of Callet. The former are calculated with ten decimals.* Logarithms are of incalculable importance in trigonometry and in astronomy. Vega's edition of Vlacq's tables contains a trigonometrical table of the common logarithms of the radius or *log. sin. tot.* = 10.0000000, which gives the logarithms of sines, arcs, co-sines, tangents, and co-tangents for each second of the two first and two last degrees, and for each ten seconds of the rest of the quadrant. Under Napier's direction, B. Ursinius first gave the logarithm of the sines of the angles from 10 to 10 seconds, the logarithm of the tangents, which are the differences of the logarithms of each sine and co-sine, together with the natural sine for a radius of 100,000,000 parts. Kepler turned his attention particularly upon the invention of Napier, and gave a new theory and new tables. Briggs was also conspicuous in the construction of tables. Mercator shows a new way for calculating the logarithms easily and accurately. Newton, Leibnitz, Halley, Euler, L'Huillier, and others, perfected the system much, by applying to it the binomial theorem and differential calculus. The names of Vlacq, Sherwin, Gardiner, Hutton, Taylor, Callet, and others, deserve to be honorably mentioned. The edition of Vlacq, within a few years, by Vega, is particularly valuable. During the French revolution, when all measures were founded on the decimal division, new tables of the trigonometrical lines and their logarithms became necessary. The director of the *bureau du catastre*, M. Prony, was ordered, by government, to have tables calculated, which were to be not only extremely accurate, but to exceed all other tables in magnitude. This colossal work, for which the first mathematicians supplied the formulas and the methods for using the differences in the calculations, was executed, but the depreciation of the paper money prevented its publication. The tables would have occupied 1200 folio pages. (*Notices sur les grandes Tables Logarithmiques et Trigonométriques, calculés au Bureau du Catâstre à Paris, an IX.*)

Logau, Frederic, baron of; an epigrammatist, born in Silesia, 1604, and died in 1655. He early showed poetical talents, but, at a later period, his avocations appear to have prevented him from attempting any large poems, and his poetical productions were confined to short pieces and epigrams. He published a selection of 200 epigrams, which were so well received, as to induce him (probably in 1654) to publish a new collection of 3000. A contemporary of Opitz, he followed in the steps of his great predecessor, and often expresses himself with as much vigor. Many of his epigrams are original and happy, and are the more striking as this department has been little cultivated by German writers. Logau is particularly original in the gnome, and truly poetical in a form which is now become foreign to poetry. Ramler and Lessing, who edited a collection of his epigrams in 1759, revived his reputation. After Lessing's death, Ramler republished the collection, in 1791. Select poems of Logau are contained in W. Müller's *Bibliothek deutscher Dichter des* 17 *Jahrh.* (Library of the German Poets of the seventeenth Century, volume vi, Leipsic, 1824).

Logge di Raffaello; part of the

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* Logarithmic and Trigonometric Tables have lately been published by F. R. Hassler (New York, 1830); and Mathematical Tables, comprising Logarithms of Numbers, &c (Boston, 1830). The English Tables are too numerous to mention.

Vatican, and one of those beautiful scenes to be found nowhere but in Rome. Leo X had these *logge* or arcades built under the direction of the immortal Raphael. There are three stories which enclose a court called *il Cortile di S. Damaso.* The middle story is the most celebrated. It is formed by thirteen arches, and the vault of each contains four paintings in fresco, representing scenes from the Old Testament, and executed by Giulio Romano, Pierin dal Vaga, Pellegrino da Modena, Polidoro, and Maturino da Caravaggio, and others, after cartoons prepared by the great Raphael himself. The number of these exquisite pictures is fifty-two; the arches and pilasters are adorned with grotesque paintings, executed by Giovanni da Udine, so famous in this branch, also under the direction of Raphael.

Logic (λογικη, i. e. ἐπιστημη); the science of the laws of thought, and the correct connexion of ideas. It is not certain, however, whether the name was derived originally from *thought* or from *language*, because both may be designated by λόγος, i. e. reason and word. In German, this science has also been called *Denk-Lehre*, or *Verstandes-Lehre* (rule of thinking, or rule of the understanding), because logic strives to represent, in a scientific way, those laws which the understanding is bound to follow in thinking, and without the observance of which, no correct conclusions are possible. Logic is valuable, not only as affording rules for the practical use of the understanding, but also as a science preparatory to all other sciences, particularly mental philosophy, as it affords the rules for giving scientific connexion to all knowledge, the laws of thinking determining the character of scientific arrangement. But, inasmuch as the laws of logic can only determine the form of our knowledge, but can by no means teach us how to obtain the materials of knowledge, and gain a clear insight into things (which is the business of *mental philosophy*, properly so called), in so far logic has been, of late, separated from intellectual philosophy. But if, as is not unfrequently done, all sciences are divided into the historical (those which proceed from experience, as history, natural philosophy, medicine, &c.) and the philosophical (the subjects of which do not fall within the domain of experience), logic is a philosophical science, because the laws of the connexion of thoughts and ideas are founded in reason itself, and not in experience, and the subjects of logic are, therefore, capable of a demonstrative certainty beyond those of any other philosophical science. Logic has not unfrequently been overvalued, particularly by the ancient philosophers. It should be always kept in mind, that the most systematic order, alone, does not render assertions truth. The province of logic has been enlarged or restricted by different philosophers. Among the ancients, logic was made to include the deeper philosophical investigation of the general characteristics of truth, or the essential conditions of the truth of our knowledge, which some modern philosophers have referred to metaphysics. Logic may be divided into the pure and the applied; the former treats of the general laws and operations of thought (conceiving, judging, concluding), and their products (notion, judgment, conclusion). Applied logic treats of thought under particular and special relations, which are to be taken into consideration in applying the general laws of thought, viz. the connexions of thought with other operations of the mind, and the impediments and limitations which it thereby experiences, as, also, the means of counteracting them. For the first scientific treatment of logic, we are to look to the Greeks. Zeno of Elea is called the father of logic and dialectics; but it was then treated with particular reference to the art of disputation, and soon degenerated into the minister of sophistry. The sophists and the Megarean school (founded by Euclid of Megara) greatly developed this art. The latter, therefore, became known under the name of the *heuristic* or *dialectic school*, and is famous for the invention of several sophisms. The first attempt to represent the forms of thinking, *in abstracto*, on a wide scale, and in a purely scientific manner, was made by Aristotle. His logical writings were called, by later ages, *organon*, and for almost two thousand years after him maintained authority in the schools of the philosophers. His investigations were directed, at the same time, to the criterion of truth, in which path Epicurus, Zeno, the founder of the stoic school, Chrysippus and others followed him. Logic, or dialectics, enjoyed great esteem in later times, particularly in the middle ages, so that it was considered almost as the spring of all science, and was taught as a liberal art from the eighth century. The triumph of logic was the scholastic philosophy (which was but a new form of the ancient sophistry); and theology, particularly, became filled with verbal subtilties. Raymundus Lullus strove to give logic another form. The scholastics were attacked by Campanella, Gassendi, Peter Ramus (*Pierre de la Ramée*), Bacon and others with well-founded objections. Descartes and Malebranche again confounded logic and metaphysics. Locke, Leibnitz and Wolf, Tchirnhausen, Thomasius, Crusius, Ploucquet, Lambert (in his New Organon), Reimarus and others, have rendered great service to modern logic. Kant, Fichte, Schelling, Hegel, have maintained very various opinions on the subject. Whateley's Treatise on Logic, first published in the *Encyclopædia Metropolitana*, and since in a separate volume, is one of the best treatises, in English, on the subject.

Logier, John Bernard, descended from a family of French refugees, was born in 1780, at Kaiserslautern in the Palatinate, where his grandfather was organist. His father was appointed, in 1796, violinist in the chapel of the elector of Hesse-Cassel. When the subject of this article was ten years old, he played the flute, then his favorite instrument, at a public concert. His parents having died, his guardian endeavored to dissuade him from cultivating music, and he accepted the offer of an Englishman to accompany him to England, in 1805. De Griffe instructed him on the piano-forte. He received an appointment in the band of a regiment, composed several pieces for the band, and gave instruction on the piano-forte, which led to his attempts to simplify the manner of teaching. He was appointed organist in Westport, Ireland, the regiment having been disbanded in consequence of peace. Wishing to teach his daughter, then seven years old, to play the organ in his absence, and finding her hand defy all his endeavors, he was led to think of some contrivance for giving it the necessary flexibility. The result was his valuable *chiroplast* (former of the hand), which was completely successful. In 1814, he began to teach his system more generally in Dublin. In 1817, Mr. Logier went to London to have his system examined by the philharmonic society. Although the result of the examination was not favorable, the system became very popular. In 1821, the Prussian government sent an agent to London to inquire into its merits, and Mr. Logier was soon after invited by the same government to introduce it in Berlin, whither he went in 1822, and, at the end of five months, received an order from the king to instruct twenty persons so that they might spread his method throughout Prussia. It was introduced into Leipsic, and many other places of Germany. Its peculiarity consists in giving instruction to many pupils at the same time, and, though open to the objection to which all systems are exposed, that they cannot produce genius, its success sufficiently shows not only its practicability, but also its advantages.

Logos (Greek, λόγος, from λέγειν, to speak) has a great variety of meanings: 1. language, speech in general; hence, 2. every manifestation of the reason and understanding by language, so that it has the meanings of oration, eloquence, conversation, address, also of the right and opportunity of speaking, &c. Language being peculiar to man, as a reasonable being, and speech presupposing thought, *logos* signifies, 3. reason, the faculty of thinking in general; 4. every thing which is a production of the latter, as notions, conceptions, demonstration, calculation, explanation, condition and relation, nay, even wisdom and logic. Thus *logos* has the meaning both of *ratio* and *oratio*.* In Christian theology, the word λόγος, as used in certain passages in the Scriptures, has been the source of continual disputes ever since the third century of our era. The passage in the Bible which chiefly gives rise to this discussion, is the opening of the gospel of St. John:—"In the beginning was the Word, and the Word was with God, and the Word was God. The same was in the beginning with God. All things were made by him, and without him was not any thing made that was made," &c. In the Greek text, the expression here translated *Word* (*le verbe*, *das wort*, &c.) is λόγος. What is here to be understood by λόγος, what is its essential character whether it is a person of the Deity or not, the creative intellect of God, or the Son, through whom he created, or the divine truth which was to be revealed, &c.—this work is not the proper place to examine, nor will our limits permit us even to enumerate the different opinions which have been entertained on this interesting point of Christian metaphysics. We can refer the reader to no better source of information than the General History of Christianity and the Church (in German), by Augustus Neander, Hamburg, 1827 et seq.

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* A slight study of cultivated languages will show how generally the word signifying *speech*, or some word derived from the original verb *to speak*, has acquired a very extended meaning; as the Latin *res*, from the Greek ῥέω, I speak, λόγος from λεγειν. *Emer* and *Deber*, signifying *word*, are the most generic terms in the Oriental languages.

—a work of distinguished research and impartiality. The Roman Catholic doctrine of the λογος (*verbum*) makes it a person, and not a mere name, and maintains that the Word is called *God*, not by catachresis, but in the strict and rigorous meaning of the term; that the most ancient fathers of the church always taught the divinity of the Word, and that they derived the idea from the Holy Scriptures alone, and not from the Platonic philosophy, as many have asserted. For a view of the Catholic doctrine, we must refer our readers to the Catholic *Dictionnaire de Théologie* (Toulouse, 1817), article *Verbe*, and to the works particularly devoted to this subject. Some of the opinions of modern theologians on the meaning of the *logos* are as follows:—It is necessary, some say, in order to understand the true meaning of *logos*, to begin with the examination of σοφία, which was previously used. (See the book of *Proverbs*, viii, 1 et seq., and the book of *Wisdom*, vii, 22 et seq.) The poetical author of the Proverbs does not imagine a person separate from God, but only an interior power of God, because, in his time, there could be no idea of a being proceeding from God, the Jews having borrowed this notion at a later period from the Oriental doctrine of emanations. The author of the book of Sirach (xxiv, 3) first uses λόγος τȣ̃ Θεȣ̃, as equivalent to σοφία, to signify the almighty power of God. The Word being an act of wisdom, gave rise to the symbol. John speaks of the *logos* in the beginning of his gospel only, and afterwards uses the expression πνεῦμα τȣ̃ Θεȣ̃. From his representation, the following positions have been deduced:—the *logos* was (*a.*) from the beginning of all things (comp. *Proverbs*, viii, 22; *Sirach*, xxiv, 9); (*b.*) from the beginning with God (comp. *Sir.* i, 1; *Wisd.* ix, 4, 9); (*c.*) through it the world was created (*Prov. Sol.* viii, 31; *Sir.* xxiv, 9); (*d.*) in the person of Christ, the *logos* was manifested as a man to the world (*Wisd. Sol.* x, 16; ii, 14; *Sir.* xxiv, 12). St. John, therefore, say those who thus interpret him, had the same idea of the *logos* as the apocryphal writers; for the circumstance that the latter ascribe to the *logos* the creation of all things, while St. John leaves this point undecided in his ἐν ἀρχῆ ἦν, does not amount to a contradiction. Others, particularly the earlier commentators, understand by *logos*, the Deity himself, that is, the second person of the deity (according to St. John viii, 58). But those who adhere to the former opinion maintain that this is in contradiction to John xiv, 28; xii, 49—50; v, 19—20; and that he understood by *logos*, only a power of God, which was communicated to Jesus, on account of which he could claim divine attributes, and yet call the Father, as the source of this power, greater than himself. Others, as Herder, Paulus, Eckerman, understand by *logos*, the Word of God (דכר יהוה), which, in the Old Testament, as the expression of the will of God, is the symbol of his creative power (*Gen.* i, et seq.). The later Jews also represented the divine omnipotence by the *word of God.* But it is maintained, on the other hand, from the manner in which John speaks of the *logos*, that he did not understand by it merely the divine omnipotence. A similar account is given of the creation by the Word, in the religion of Zoroaster. According to Richter (*Das Christenthum und die ältesten Religionen des Orients*), the *logos* corresponds with the Indian Om, the Persian Hanover, the Egyptian Kneph. Others, following the fathers of the church, particularly Eusebius, understand by *logos* an independent substance, external from God, like the νȣ̃ς of Plato. But this, again, it is said, involves an error, because Plato means by νȣ̃ς, only a power of God. Still others, as Mosheim, Schlegel, Jerusalem, declare, with Irenæus, the *logos* of St. John to be identical with the *logos* of the Gnostics (q. v.); but it is objected, that John did not conceive of a plurality, like that in the doctrine of æons. Lange considered *logos* equivalent to the *sophia* of the Old Testament, and that to the *logos* of Philo, and as a distinct person from God; but, say the others, σοφία is not something distinct from God. Paulus, in his Commentary, also identifies the *logos* of Philo with that of St. John. But it is said, on the other hand, that John cannot be supposed to have been acquainted with Philo's notion, as it was not an opinion commonly known at the time, and that the view of the apocryphal writers is more similar to his; moreover, that if St. John meant any thing more than an original, eternal power in God, his Θεὸς ἦν would imply dualism. Others have attempted grammatical explanations. Döderlein and Storr translated the word λόγος by *doctrina*, the abstract being put for the concrete, *doctrine* for *teacher*, as in *Gen.* xlii, 38.; 2 *Sam.* xxii, 23; *Luke* iv, 36. According to others, ὁ λόγος means ὁ λεγόμενος (the promised); but history makes no mention of Christians who still expected a Messiah. The ancient philosophers often distinguish two *logoses*, an interior in God or man, which merely thinks (λόγος ἐνδιαθετος), and an exterior or uttering (λόγος προφορικός).*

Logthing; the legislative portion of the Norwegian *storthing*, or diet. As soon as the king or his representative has opened the session, the storthing choose one quarter of their members to compose the logthing. The remaining three-fourths constitute the *odelsthing*, or representatives of the landed property. These bodies conduct their deliberations separately, and each chooses its own president and secretary. Every law is first proposed in the odelsthing, either by its own members or by the government through a counsellor of state. If the proposition is then accepted, it is then sent to the logthing, who either accept or reject it, at pleasure, in the latter case giving their reasons. These are considered by the odelsthing, who either abandon the proposed measure, or send it again, either with or without alteration, to the logthing. If the proposition is twice sent down by the odelsthing to the other house, and is, by them, twice rejected, the whole storthing then assemble together, and the question is decided by a vote of two thirds of all the members. At least three days must elapse between each of the considerations. When a measure, proposed by the odelsthing, has received the assent of the other division of the assembly, or of the whole storthing, a deputation from both branches of the storthing is sent to the king, or, in his absence, to the viceroy or regency, to obtain the royal sanction for the measure. The sessions of both houses are public, and their deliberations are daily made known to the public by means of the press. The members of the logthing form, together with the highest judicial authorities, the supreme court of the kingdom, which decides on charges, preferred by the odelsthing, against the members of the council of state, or of the members of the superior courts, for violation of their official duties, or members of the storthing, for any offences which they may have committed in that capacity. In this tribunal, the logthing presides. Against a sentence pronounced by this supreme tribunal, no pardon avails, except in cases where the punishment is death. (See *Storthing*.)

Logwood. This important article of commerce is the wood of the *hæmatoxylon Campechianum*, a small straggling tree, belonging to the family *leguminosæ*, which grows wild, in moist places, along the western shores of the gulf of Mexico. From its abundance in some parts of the bay of Campeachy, it is sometimes called *Campeachy-wood*. The leaves are pinnate; the flowers small, yellowish, and disposed in axillary racemes at the extremity of the usually spinous branches. The wood is red, tinged with orange and black, so heavy as to sink in water, and susceptible of receiving a good polish; but it is chiefly employed in dyeing. The black and purple colors are very much used, but they are not so permanent as some obtained from other substances. Though cultivated to some extent in Jamaica, the logwood of commerce is chiefly obtained from Honduras, where the cutting of it forms an extensive, but unhealthy, branch of business. From Honduras it is exported in great quantities to the U. States.

Lohenstein, Daniel Caspar von, a German poet of the Silesian school, was born 1635, in Silesia, and died 1683, at Breslau. He wrote a great deal, particularly tragedies and comedies; and we mention him merely as a model of bad taste. His bombast is pushed to the furthest extravagance, and, as an instance of aberration from taste, is not uninteresting in the history of the human mind. His dramatic *extravaganzas* are collected in his *Trauer- und Lustgedichte* (Breslau, 1680, 1689; Leipsic, 1733).

Loir-and-Cher; a department of France, so called from the two rivers which cross it; the former in the south part, and the other in the north. (See *Department*.)

Loire (*Liger*), the largest river of France, rises in the Cevennes, in the department of the Ardèche, and empties into the Atlantic ocean below Nantes in Bretagne. Its length is about 520 miles. It is shallow in many places, but is navigable for large merchant ships to Nantes, for smaller ones to Briaire, and for boats to Roanne. The levee upon the Loire is one of the most stupendous works in France. It extends from Angers to Orleans, and was constructed to confine the river within its banks, and to exclude the waters from a tract of country which is said formerly to have been a morass 100 miles in length, and 30 or 40 in breadth. Its base is about 40 feet wide, and its elevation nearly 25 from the adjoining level; and its upper surface, which is paved with large stones, is just capacious enough to admit three carriages abreast. By the new division of France, since the revolution, three departments have received their name from the river—the Loire, and the Upper, and Lower Loire. In 1815, the river became of historical importance. The French army, which, after the battle of Waterloo, had fallen back to the walls of Paris, having, by the terms of capitulation made by the provisionary government, retired without further hostilities, under the command of Davoust, beyond the Loire, it was called the *army of the Loire*.

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* Göthe, in his celebrated Faustus, makes use of this passage of St. John to plunge Faustus deeper into his despondency. He endeavors to translate λόγος by *word, mind, power:* nothing will do: at last he chooses *deed*, and is satisfied. Though this agrees well enough with the character of the hero, the poet ought to have considered that if Faustus understood Greek, he must have known that λόγος never means *deed* or any manifestation of reason by action.

Loire, Loire Upper, and Loire Lower; three French departments. (See *Department.*)

Loiret; a French department. (See *Department.*)

Loizerolles, M. de, was a barrister at the time of the revolution, and was arrested, with his father, in 1793, on suspicion, and conveyed with him to the prison of St. Lazare. On the 7th of Thermidor, two days before the fall of Robespierre, the messengers of the revolutionary tribunal arrived at the prison with a list of the prisoners who were to be tried, and called for Loizerolles, the son. The young man was asleep, but the father, with a heroic wish to sacrifice his life for the preservation of his son, allowed himself to be taken to the Conciergerie, and appeared before the judges. The clerk, perceiving the error in point of age, substituted the name of Francis for John, the word father for son, and the age of 61 for 22, and thus the father was led to the scaffold, though no charge or crime was alleged against him! M. Loizerolles, junior, has since celebrated this act of paternal affection in a poem, in three cantos, with historical notes (18mo., 1813).

Lok. (See *Northern Mythology.*)

Lokman is a name that figures in the proverbs and traditions of the Arabians. The period at which he lived is very differently stated, so that it is even doubtful if there were not two of the same name at different periods. According to tradition, Lokman was a scion from the stock of Ad, and was once sent, with a caravan, from Æthiopia to Mecca, to pray for rain in a time of great drought. But God's anger destroyed the whole family of Ad, except Lokman, the only righteous one; whereupon the Creator of the world gave him his choice, to live as long as the dung of seven gazelles, which lay in an inaccessible hole in a mountain, should last, or for a period equal to the lives of seven successive vultures. Lokman chose the last, and lived for an almost incalculable length of time. There is also in the Koran an account of a Lokman, surnamed *the wise;* sometimes, also, called *Abu-Anam*, or *the father of the Anams.* This one, whether identical with the former or not, is not for us to determine, lived in David's time, and is represented as similar in many respects to the Phrygian Æsop; and the Arabians have a great variety of fables by him, which, however, are formed upon the model of those of Æsop, and of which the whole style and appearance are such, that they cannot be referred to so early a date as the first century of the Hegira. This person had, also, a life of remarkable duration (according to some 300, according to others 1000 years), which coincidence in the accounts of them affords good grounds for the conjecture, that the Lokman of the Koran, and the one whom tradition ascribes to the race of Ad, are one and the same person, whose history, in the course of ages, has been thus fancifully adorned. The fables of Lokman were for the first time, made known to Europe through the press, by Erpenius, in 1615. They were first published in Arabic, with a Latin translation, were afterwards appended to an Arabic grammar, published by Erpenius, at Leyden, and have since gone through many editions, none of which, however, are free from errors. Among the Oriental nations, these fables, owing to their laconic brevity and tasteless dress, are held in little respect, and, on the whole, are not worthy of the reputation which they have, for a long time, sustained with us. In 1799, during the occupation of Egypt by the French, Marcel superintended an edition of *Fables de Lokman*, at Cairo, which was republished in Paris in 1803; but the best is that prepared by Caussin, in 1818, for the use of the pupils at the *collége royale.* The editor of Galland's translation of the *Homayoun-Nameh*, or Fables of Bidpai, is mistaken in ascribing these Indian fables to Lokman as well as Bidpai. The most complete manuscript of the fables of Lokman is in the library of the Vatican, in Persian.

Lollards. (See *Beguines, Fraternities,* and *Oldcastle.*)

Lolli, Antonio; a celebrated violinist, born 1728, or, according to some, 1740, at Bergamo, in the Venetian territory. In 1762—73, he was in the service of the duke of Würtemberg. He afterwards went to Russia, and his performance pleased the empress Catharine II so much, that she presented him with a bow, on which she had herself written the words, "This bow, made by Catharine, with her own hands, is intended for the unequalled Lolli." In 1775, he travelled in England, France and Spain. In Madrid, besides other perquisites, he received 2000 reals from the director of the theatre for each concert. In 1789, he returned to Italy, and died at Naples, in 1794. Lolli endeavored to unite the excellences of the schools of Nardini and Ferrari. He had acquired an astonishing facility on his instrument. He was called the *musical rope-dancer*. None of his predecessors had attained such perfection on the finger-board; but, at the same time, he lost himself in wild and irregular phantasies, in which he often neglected all time, so that the most practised player could not accompany him.

Lolme, De. (See *De Lolme*.)

Lombard-House, Lombard (*mons pietatis*, *mont de piété*); a public institution, at which every person, but especially the poor, may obtain money for a short time, at a moderate rate of interest, on depositing sufficient pledges (pawns), and are thus saved from the necessity of having recourse to usurers. The chief difference between Lombards and pawn-houses is, that the former are established by public authority, for the relief of the poor, while the latter are established by private individuals, for their own profit. After a given time, the pawns, if not redeemed, are sold by public auction, and the surplus, after deducting interest and costs, is given to the former owner; or, if he cannot be found, retained for him one year. If he does not then appear, the sum is given to charitable institutions. The Lombard gives a certificate, stating the time of deposit, the sum received, the name of the pawner, the article pawned, the page of the book in which it is entered. The bearer of this certificate may redeem the articles within the time fixed, unless the owner has apprized the Lombard that it was lost, &c. The origin of these establishments has been, with much probability, referred, by Dorotheus Ascionius (i. e. Matthew Zimmermann, who died in 1639, and who was superintendent in Meissen*), to the time of pope Pius II or Paul II (1464—1471). Barnabas Interamnensis, however, a Minorite friar, established the first Lombard-house in Perugia, in the States of the Church, before 1464, or in that year, though it did not receive pope Paul II's confirmation before 1467. A lawyer in Perugia, Fortunatus de Copolis, rendered much assistance in the execution of the plan. Another Lombard was soon after erected in Orvieto. In 1472, Sixtus IV confirmed one, established at Viterbo, in 1469, by a Minorite, Franciscus de Viterbo, and, in 1479, another at Savona, his native place. Lombards were thus gradually established in almost all Italian cities during the fifteenth and sixteenth centuries. (See Beckmann's *History of Inventions*, vol. iii, 3d part.) The first Lombard in Germany was established in Nuremberg, in 1498, with an imperial privilege. In the Netherlands, France and England, whither the rich Lombard merchants emigrated, on account of the struggles of the Guelphs and Gibelines, they lent their money for interest; whence such establishments were, and still are, called *Lombards*. In some large cities of Europe, the Lombards are very extensive, but do not always attain the object for which they were originally intended, as the following statement will prove. The following statistical tables, relative to the *mont de piété* in Paris, framed by the prefect of the Seine, are interesting, as they show that there is a numerous class of persons who can with difficulty find the means of existence; and that half of the inhabitants of the capital are obliged to have recourse to the pawn-broker, at some time of the year, though they are forced to pay usurious interest. In the year 1826, there were 1,200,104 pledges of different articles, upon which the sum of 24,521,157 francs was lent. The number of pledges redeemed in the same year amounted to only 1,124,221, and the sum to 21,569,437 francs; so that 75,883 remained at the *mont de piété;* and there was in its hands the sum of 2,951,720 francs. As it is the principle of the *mont de piété* not to lend more than about a quarter of the value upon articles pledged,—though the law for its formation, dated in 1777, directs that the borrower shall receive two-thirds of the value of his pledge,—we may estimate the value of the 75,883 unredeemed pledges, upon which nearly 3,000,000 of francs were lent, at 12,000,000. Supposing the sale of these articles to be effected, and all the reductions of excise, registry, &c., made, there would be returned to the proprietors of them the half of these 12,000,000. It would result, that 6,000,000, at least, are thus annually levied upon the least affluent class of society—that which approaches the nearest to the description of persons for whom the *depôts* for mendicity were created. Independently of these 6,000,000, inevitably lost to the unfortunate borrowers, we must add the interest of 12 per cent. per annum, taken upon the 24,521,137 francs lent by the *mont de piété;* that is to say, 2,942,536 francs, adding nearly 3,000,000, which, with the 6,000,000 already spoken of, constitute a total of 9,000,000. 9,000,000, divided among 437,500 inhabitants, half of the 875,000 composing the entire population of the capital, give 20 francs, 20 centimes, or, omitting the fraction, 20 francs for each inhabitant. In a family composed of four persons, the average will then be nearly 80 francs—an immense sum for a family which can with difficulty procure daily necessaries!

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* A superintendent, in the north of Germany, is a superior Protestant minister.

Lombard School. (See *Italian Art*, in the article *Italy*, and *Painting*, *History of*.)

Lombard Street, a well-known spot in the gigantic metropolis of the British empire, is situated in the city, and received its name from having been the residence of the Lombards, the money-lenders of former times, whose usurious transactions caused their expulsion from the kingdom in the reign of Elizabeth. It is now chiefly occupied by bankers, and is a place of much importance in the London commercial world.

Lombards, Longobardi, or Langobardi. Some derive the name from the long *bards* or spears, by which this nation is said to have been distinguished from the other northern tribes; others from the long strips of land (*bœrde*) which they inhabited, on both sides of the Elbe, from Luneburg to Magdeburg. They are generally considered a German tribe (but Paulus Diaconus calls them Scandinavians), of the tribe of the Herminones or Suevi, which dwelt below the Istævones. Their most ancient seats were on the east side of the Elbe, in the eastern parts of the principality of Luneburg, and in the Altmark, or the *Bardengau*, so called, which, most probably, takes its name from them. Here Tiberius found them, on his expedition to the Elbe, and fought a battle with them. Strabo narrates that Tiberius drove them beyond the Elbe; but Velleius Paterculus, who himself accompanied the expedition, makes no mention of it. The Lombards afterwards appear in the Marcomannic league, under Maroboduus, with whose despotism being dissatisfied, they concluded a league with the Cherusci. They appear, at this time, to have left their settlements on the Elbe, and to have approached nearer the Cherusci. The latter tribe, having been weakened by a series of misfortunes, the Lombards improved the opportunity to spread themselves farther, and humiliate the Cherusci, took possession of all their settlements north of the Hartz mountains, and became the most powerful of the nations there. According to the accounts of Ptolemy, they now spread between the Weser and the Rhine, in the territories of the former Angrivarii, Tubantes, Marsi and Cherusci. They maintained themselves in these territories till the new Frankish confederacy, formed of the ancient Cheruscan league, enforced against them the ancient rights of the Cherusci, and, in all probability, drove the Lombards back to their ancient seats on the Elbe. For 200 years, we hear nothing more of them, till, at the close of the fifth century, they appeared again on the north side of the Danube, and, after having obtained a part of Pannonia from the Greek emperor Justinian II, aided by the Avari, put an end, under their king Alboin, in 566, to the empire of the Gepidæ, in Transylvania. Meeting with little resistance, they conquered, two years after, under the same king, in connexion with 20,000 emigrant Saxons, all Upper Italy (which was now called the *kingdom of the Lombards*, subsequently *Lombardy* (see *Lombardy*), together with a great part of Middle Italy. Their king, Liutprand, an able sovereign, from 713 to 726, extended the Lombard dominion in Middle Italy. But, having become too formidable to the popes, the latter solicited the aid of the Frankish kings, and Charlemagne took the Lombard king Desiderius prisoner, in 774, after a six months' siege, in Pavia, and destroyed the Lombard kingdom.—(See Henry Leo's *History of Italy*, vol. 1 (from A. D. 568 to 1125), in the *Geschichte der Europäischen Staaten*, by Heeren and Uckert (Hamburg, 1829).—A political history of Italy, and of the social condition of the people under the dominion of the Lombards, by C. Troya, of Naples, has been announced.

Lombardy, in the sixth century, when the Lombards had conquered a great part of Italy, comprehended the whole of Upper Italy. At a later period, the Austrian provinces in Italy (the duchies of Milan and Mantua) have been called *Austrian Lombardy*. These, with other countries, were formed by Bonaparte into the Cisalpine, then into the Italian republic, and, lastly, in 1805, into the kingdom of Italy, and the name of *Lombardy* ceased to be used. By the peace of Paris, in 1814, Austria came into possession of much of that part of Upper Italy which had constituted the kingdom of Italy, and, in 1815, it formed of its Italian provinces a Lombardo-Venetian kingdom. In this are comprehended the territories of the former republic of Venice (with the exception of Istria, and the canton of Civida, which are united to the new kingdom of Illyria), the Austrian portion of the duchy of Milan, Mantua, a small part of Parma, Placentia, and the papal territories, and those formerly belonging to Switzerland, viz. the Valteline, Bormio and Chiavenna. It is bounded by Switzerland, Germany, the Adriatic sea, the Papal States, Modena, Parma and Sardinia. It contains 17,600 square miles, and 4,176,000 inhabitants, among whom are 66,500 Germans, 5600 Jews, and some Greeks. It is watered by the Tagliamento, the Piave, the Brenta, the Adige, the Po, Ticino, Mincio and Adda. The principal lakes are those of Como, the Lago Maggiore, and the lakes of Iseo and Garda. Its canals are also numerous. The country is, for the most part, level, but towards the north, it is broken by spurs of the Alps, and to the west of Padua, lie the Euganean mountains, mostly of volcanic origin, and from 1700 to 1800 feet in height. This province is, in most parts, well cultivated, and resembles a garden. The climate is cool in the northern districts, near the Alps; but is, in the remaining parts, warm, mild and healthy, although not free from frosts in winter; and, on this account, it sometimes happens that the olive, orange, citrons, and other tender plants, as well as the vineyards, are injured by the cold, and the rivers frozen. Even the lagoons at Venice are sometimes frozen so hard, that you may walk a considerable distance, or even drive carriages, upon them. The animals of the country are neat cattle, tolerable horses, sheep with coarse wool, numerous birds and fish. The silk-worm is also raised. Agriculture is the chief dependence of the inhabitants. The soil is fertile, and very productive in maize, and other species of grain, leguminous plants, garden fruits, flax, &c. Lands that are swampy are devoted to the cultivation of rice, of which part is consumed in the country, and part exported to Germany. The production of oil and wine is also much attended to. Besides the fruits above-named, chestnuts, almonds, figs, and many other fruits, grow here. A considerable trade is carried on in figs, oranges and citrons. The mineral kingdom produces iron, copper, marble, salt. There are some mineral waters. Manufactures no longer sustain the rank which they once held: the principal are those of glass, silk and iron. The production and manufacture of silk are attended to throughout the country. All kinds of silk stuffs, ribbons, hose and sewing-silk are exported. The manufacture of glass at Venice and Murano was once important, and their mirrors much celebrated; and, even now, artificial pearls, and glass work of all kinds, are executed in great perfection. The manufactories of steel and iron are chiefly to be found at Brescia, where many fire-arms, sabres, knives, &c., are made. The manufacture of woollens has much declined. The gold and silver works at Venice and Milan are celebrated; porcelain, pottery, carpets, paper, many articles of luxury, as masks, artificial flowers, pomatum, confectionary, perfumes, sausages, candied fruits, vermicelli, and Parmesan cheese, are also produced. Cremona is noted for her violins, flutes, lutes, &c. The exports exceed the imports in value. This country is dependent upon the Austrian government, but, in April, 1815, the emperor gave it a constitution. (See article *Constitution*, vol. iii, p. 468.) It is governed by a viceroy, who resides at Milan, and is divided into the governments of Lombardy and Venice. The administration of each is intrusted to a governor and a council, dependent upon the highest authorities at Vienna. The government of Lombardy contains nearly 2,200,000 inhabitants, on 8270 square miles of territory, and its capital is Milan. Venice is the capital of the government of the same name, which contains 2,000,000 inhabitants, upon 9330 square miles. The subdivisions are called *delegations*. With the authorities are connected permanent colleges, composed of individuals from various classes.

Loménie de Brienne, Stephen Charles, cardinal, archbishop and minister of state in France, born at Paris, in 1727, embraced the clerical profession, in which his active spirit, and the powerful influence of his connexions, enabled him to rise rapidly, although his connexion with the free-thinkers of the age (D'Alembert, Morellet, &c.) could not have been very agreeable to the court and the clergy. In 1754, he published, with Turgot, *Le Conciliateur, ou Lettres d'un Ecclésiastique à un Magistrat*, which was intended to quiet the difficulties then existing between the parliament and clergy, and which was afterwards several times republished by

Condorcet, Dupont de Nemours, and others. In 1758, he was at Rome, in the capacity of conclavist of cardinal de Luynes, in the conclave which raised Clement XIII to the papal throne. In 1760, he was appointed bishop of Condom, and, three years after, received the archbishopric of Toulouse, in which situation he obtained the praise of those who were opposed to the old hierarchical and monkish establishments. While he attempted to reduce the power and wealth of the monasteries, he was liberal in assisting all who were in need; he caused the Garonne to be united with the canal of Caraman, by a lateral canal, which still bears his name; he established institutions for education, also hospitals, and several scholarships at the military school at Toulouse. In 1770, he was made a member of the academy, and, when Beaumont, the archbishop of Paris, died, he would have obtained that elevated situation, but for his attempts at a general reform of the monasteries, which the bigots at court could not forgive. At the first breaking out of the discontents in France, Brienne was among the most active. He was the first to raise his voice against the administration of Calonne; and, after the dismission of that minister, the partisans of Brienne induced Louis XVI to place him, as his successor, at the head of the finances. His brother, the count de Brienne, was, at the same time (1787), appointed minister of war. The new financier certainly fell short of the most moderate expectations; and, if some excuse is found for him in the almost inextricable confusion which reigned in the affairs of France at this period, still his warmest defenders must allow that, for once, at least, they were deceived in him. The confusion increased daily, and the minister, whose ambition had raised him to the rank of prime minister, at this stormy period, showed himself destitute of ability and resources. Complaints were soon raised against him on all sides, and, in August, 1788, the king found himself compelled to dismiss him, and to appoint Necker in his place; who, however, as is well known, was himself unable to quell the storm. Brienne had previously been nominated archbishop of Sens, in place of the cardinal De Luynes, and, to console him for the loss of his place as minister, Louis gave him some abbeys, and obtained for him, from Pius VI, a cardinal's hat. Brienne also took a journey to Italy, but without visiting Rome, and returned, in 1790, to France, to make arrangements for the settlement of his debts, which, notwithstanding his immense income, were so considerable as to compel him to dispose of a portion of his valuable library. The *cardinal de Loménie*, as he was now called, took the oath prescribed to the clergy by the constitution, and, in March, 1791, he asked his dismission from the college of cardinals—a favor which Pius willingly granted. Brienne had hoped, by this step, to save himself from the persecutions of the revolutionary party; but he was arrested at Sens, in November, 1793, was released, and, subsequently, again arrested, and, upon the morning of Feb. 16, 1794, was found dead in his prison. The ill treatment and abuse which he had suffered from his brutal guards, together with an indigestion, had brought on an apoplexy, of which he died, in the 67th year of his age.—His brother, the minister of war, Athanasius Louis Marie de Loménie, count de Brienne,—whose successor in the ministry was De la Tour du Pin,—fell, the same year, beneath the axe of the executioner. There is an *Oraison funèbre du Dauphin* (Paris, 1766), by the cardinal de Brienne.

Lomonosoff, Michael Wasilowitz; the creator of the modern poetical language of his country, and the father of Russian literature; born in 1711, near Cholmogory, in the government of Archangel, in the village of Denissowskaia, where a monument was erected to his memory, in 1825, through the influence of Neophytus, bishop of Archangel. His father was a fisherman, whom he assisted in his labors for the support of the family. In winter a clergyman taught him to read. A poetical spirit and a love of knowledge were awakened in the boy by the singing of the psalms at church, and the reading of the Bible. Without having received any instruction, he conceived the plan of celebrating the wonders of creation and the great deeds of Peter I, in songs similar to those of David. But, hearing that there was a school at Moscow, in which scholars were instructed in Greek, Latin, German and French, he secretly left his father's house, and went to the capital to seek that instruction which his inquisitive spirit demanded. He was then sent to Kiev, and, in 1734, to the newly established academy of literature at St. Petersburg, where he studied natural science and mathematics. Two years later, he went to Germany, studied mathematics under Christian Wolf, in Marburg, read the German poets, and studied the art of mining, at Freyberg. On his journey to

Brunswick, he was seized by Prussian recruiting officers, and obliged to enter the service; but, having made his escape, he returned, by the way of Holland, to St. Petersburg (1741), where he received a situation in the academy, and was made director of the mineralogical cabinet. Soon after, he published his first celebrated ode (on the Turkish war and the victory of Pultawa). The empress Elizabeth made him professor of chemistry (1745), and, in 1752, he received the privilege of establishing a manufactory for colored glass beads, &c. As he had been the first to encourage an attempt at mosaic work in Russia, the government confided to him the direction of two large pictures in mosaic, intended to commemorate the deeds of Peter I. In 1760, the gymnasiums and the university were put under his inspection; and, in 1764, he was made counsellor of state. He died April 4, 1765. Catharine II caused his remains to be deposited with great pomp in the monastic church of saint Alexander Newski. Besides odes and other lyric pieces, he wrote *Petreide*, a heroic poem on Peter I, in two cantos, which is the best work of the kind that Russia has yet produced. Lomonosoff also wrote a Russian grammar, and several works on mineralogy, metallurgy and chemistry. His Grammar, and his Sketch of Russian History, have been translated into German and French. The Russian academy published his works in 6 vols., 4to. (2d edit., 1804, 3 vols.). Admiral Tschitschagoff has written a Life of Lomonosoff. (See Bowring's *Russian Anthology*.)

Lomus, in Indian mythology; the first being created by Brama, which, to give itself up entirely to the contemplation of divine things, buried itself in the earth, and whose life will last longer even than that of Brama. In order to indicate the enormous duration of the life of Lomus, the Indians say, that Lomus has a body more than 90 miles long, covered with hair. Each time that a Brama dies, who lives 360 days, each day being equal to 4320 human years, Lomus pulls out a single hair from his body; and when, at last, all the hairs are gone, and even Vishnu and Mahadeva have ceased to live, then the whole universe is dissolved, and all returns to chaos, so that nothing remains but the eternal, original being; because with the last hair Lomus also dies.

Lon, or **Lun**; a Gothic word, signifying *wood*. *London* has been derived from it.

London, the metropolis of the British empire, stands in lat. 51° 31′ N., and lon. 5′ 37″ W. from the observatory at Greenwich. It is situated about 60 miles west from the sea, on the banks of the Thames, the mean width of which, at London, is about a quarter of a mile, and its average depth about 12 feet. The northern bank slopes gently upward, and its soil is chiefly gravel and clay, with a mixture of loam and sand. On the southern side, the surface is almost uniformly flat. The buildings on the northern, or Middlesex shore, follow the natural bend of the river, and rise somewhat amphitheatrically, from east to west, stretching northward, on an average length, to three miles from the river; and those on the southern or Surrey side, forming the chord of the semicircle, penetrate southward to an extent varying from one to three miles. The length of this vast aggregate, from east to west, i. e. from Hyde Park Corner to Mile End or Poplar, may be taken at seven miles and a half. Its circumference may be estimated at 30 miles; and its area, extending over 11,520 square acres, of which the river occupies 1120, is about 20 miles. Fashion and convenience have united to furnish various modes of designating the several parts of this colossal mass. Thus the ideal line, which is progressively moving more and more westerly, separates the world of fashion, or the West End, from the world of business. The *city*, so called, includes the most ancient and central division of the metropolis. It is rapidly being depopulated; as the chief traders and merchants occupy merely counting-houses and warehouses in the city, and, in proportion as wealth accumulates, flow towards the western regions of fashion. In the East End are found the docks and warehouses connected with ship-building and commerce, and every collateral branch of naval traffic. Southwark, or the Borough, on the southern bank of the Thames, the *trans Tiberim* of London, abounds with huge manufactories, breweries, iron-founderies, glass-houses, &c. It is the abode chiefly of workmen, laborers, and the lower classes of society, but interspersed with some considerable buildings, hospitals, prisons, and charitable foundations. The city of Westminster, including the houses of lords and commons, the law courts, royal palaces, and many government offices, may be designated as the Court End of London. The remaining portion can hardly be classified, or specifically denominated. It is a nondescript accumulation of streets, crescents, polygons, terraces and squares, occupying the northern portions of the metropolis, along the line of the new road. On the nearest computation, at the present day (1830), London contains 80 squares and about 9000 streets, lanes, rows, alleys, courts, &c.; the houses in which are said to amount to 170,000. The parliamentary census of 1821, the latest authentic document to which we can refer, furnishes the following particulars of its population:

London within the walls, ...	56,174
London without the walls, . . .	69,260
Westminster and its liberties, .	182,085
Southwark, ...	85,905
Finsbury Division, exclusive of Friarn, Barnet, Finchley, Hornsey and Stoke-Newington, ...	110,127
Holborn Division, ...	276,630
Parish of Bermondsey, ...	25,235
Parish of Lambeth, ...	57,638
Parish of Newington Butts, . .	33,047
Parish of Rotherhithe, ...	12,523
Tower Division, ...	291,650
Total,	1,200,274

All the streets of London are paved with great regularity. The carriage-road is either laid with cubes of granite, accurately jointed and embedded in clay, or else *Macadamized.* Macadamizing is greatly in vogue in the squares and wider outlets of the West End, but it seems to have failed in the narrower and more cart-trodden streets of the city. The number, variety and magnificence of the squares in London deserve a cursory notice. The largest square in London is Lincoln's Inn Fields, its area being computed equal to 770 feet square; but, the tide of fashion having long set westward, this square is chiefly occupied by members of the legal profession. The college of surgeons forms a prominent object on the southern side, and the eastern is adorned (with the intervention of a garden) by the range called *stone buildings*, part of Lincoln's Inn. Russell square is nearly equilateral, each side being about 670 feet long. The houses are spacious. It communicates with Bloomsbury square by a street, at the northern extremity of which is a colossal bronze statue of the late duke of Bedford, by Westmacott, opposite to which, at the southern end, is a similar statue of Charles James Fox, by the same artist. Belgrave square, begun on the estate of earl Grosvenor, at Pimlico, in 1825, is one of the most splendid in architectural decoration. The squares chiefly distinguished by residences of the nobility are Berkley, Cavendish, Grosvenor, Hanover, St. James, Manchester and Portman squares. Within the last seven years, the use of coal gas, instead of oil, in lighting the streets and public edifices of London, has become almost universal. The consumption of coals, by three of the gas companies, amounts to 32,700 chaldrons per annum, and their length of main pipe extends nearly 200 miles, communicating with more than 40,000 lamps. There is not a street, lane or alley, in this vast metropolis, which is not perforated, so to speak, with arched excavations. Every house communicates, by one or more drains, with the main sewers, which again empty themselves into larger tunnels, and ultimately into the Thames. London is plentifully, though not very purely, supplied with water. The New River company was incorporated under James I, in 1619. Mr. Hugh Middleton, a goldsmith and citizen of London, after many obstructions, succeeded in conveying a stream from a spring at Chadwell, near Ware, 20 miles from London, by a devious course of 40 miles in length, terminating in two capacious basins, which cover five acres, and average 10 feet in depth. These reservoirs are 85 feet above low-water mark; but, by means of siphons and steam-engines, water can be raised 60 feet above that level. It is chiefly conveyed by main and branch pipes of cast metal, which communicate with the houses by leaden pipes of an inch diameter. The total supply to 177,100 houses, is 28,774,000 gallons per day. M. Dupin observes, that the water distributed by one of these companies (the New River company) costs the consumer about 2*d.* for every 6300 pints; and that the system of pipes, for water and gas lighting jointly, stretches out in a line exceeding 400 leagues in extent, beneath the pavement of London. Fuel is sufficiently abundant, but extravagantly dear, in London. Coals can be brought to the mouth of the river Thames for comparatively moderate cost. But by certain local regulations, there are enormous duties levied on all coals coming to the port of London; and duties, amounting almost to contraband, on coals conveyed by inland navigation or otherwise The average price of coals in London, winter and summer, is, to the consumer, about 40*s.* per chaldron of 28½ cwt. About 2,000,000 chaldrons per annum are consumed in Middlesex and Surrey, and, considering the vast supplies required for the steam-engines and manufactures of London, perhaps nearly two thirds of that quantity are devoted to the metropolis alone. The coals brought to the London market are chiefly from Newcastle, in Northumberland, in coasting vessels, to the number of 4500. The average consumption of the principal articles of food, in London, has been calculated as below:

Oxen,	160,000	Annually sold at Smithfield market only.
Sheep,	1,500,000	
Calves,	21,000	
Hogs,	20,000	
Milk,	8,000,000	gallons.
Butter,	11,000	tons.
Cheese,	13,000	"
Wheat,	1,000,000	quarters, of which four fifths, made into bread, form . 15,000,000 quartern loaves.

By a return from the corn exchange, it appears that the quantity of British and foreign corn and flour in bond, on the 1st June, 1830, was as follows:

Wheat,	295,107	quarters.
Oats,	430,332	"
Flour,	173,059	cwts.
Foreign ditto:		
Wheat,	21,129	quarters.
Oats,	13,343	"

The value of poultry, annually consumed, amounts to nearly £80,000, exclusive of game, the supply of which is variable. The principal market for live cattle is at Smithfield, held every Monday and Thursday. The markets for country-killed cattle, pigs and poultry, are Leadenhall (where skins and leather, also, are exclusively sold); Newgate, on Mondays, Wednesdays and Fridays; and Fleet (now Farringdon) market, rebuilt on a large scale, and opened in 1829. The supply of fruit and vegetables is equally abundant. The chief mart is Covent garden, where ranges of handsome shops have lately been erected on the estate of the duke of Bedford. There are at least 2000 acres, in the immediate vicinity of London, continually under spade-cultivation as kitchen-gardens; which, by judicious management, yield an interminable succession of valuable esculents. It has been calculated, that the cost of fruit and vegetables consumed annually in London, exceeds £1,000,000 sterling. The fruit-gardens, exclusive of those belonging to private residences, are computed to occupy about 3000 acres, chiefly on the banks of the Thames in Surrey and Middlesex. Few cities are more abundantly supplied with fish of every description and quality. Turbot and brill of the finest quality are procured from the coast of Holland; salmon in profusion from the great rivers of Scotland and Ireland, and, occasionally, from the Thames; mackerel, codfish, lobsters and oysters, from the river mouth. A calculation makes the supply of fish at Billingsgate, in the year 1828, as follows:

Fresh salmon,	45,446	
Plaice, skate, &c.,	50,754	bushels.
Turbot,	87,958	
Cod (fresh),	447,130	
Herrings,	3,336,407	
Haddocks,	482,493	
Mackerel,	3,076,700	
Lobsters,	1,954,600	

And the number of fishing-vessels engaged in furnishing this supply, was registered, in the same year, at 3827. The consumption of ale and porter may be estimated from the following facts: It appears by the annual statement of the London brewers, for the year ending July 5, 1830, that the quantity of porter brewed by the ten principal houses, amounted to 1,077,285 barrels. The ale annually brewed, by the six principal ale-brewers, amounts to about 80,000 barrels. Still the consumption of malt liquor has decreased within the last three years; for, in 1827, the quantity returned, by the ten principal brewers, was 1,129,772 barrels. The decrease is owing, perhaps, partly to the deteriorated quality; for it appears, that, while the quantity actually brewed throughout England amounted, during the last ten years, to 6,170,000 barrels, the actual quantity of malt used decreased annually in a remarkable degree. But, besides this, the comparative cheapness, and more rapid excitation produced by ardent spirits, especially that deleterious compound called *English gin*, have induced the most destructive habits of intemperance among the lower classes. It is stated that there are about 11,000 public houses, i. e. houses for the sale of beer and spirituous liquors, in London alone, averaging a profit of 20 to 30 per cent. upon the property vested in them. The total consumption of gin, in London, has risen, during the last two years, from 12,000,000 to 24,000,000 gallons! The temperature of the atmosphere in London is considerably above that of the mean temperature of Middlesex, or the adjoining counties. It is generally humid, liable to sudden variations, and, occasionally, to fogs of extraordinary density during the winter months. The mean temperature is 51° 9′ Fahrenheit. The extreme range of the thermometer may be taken in January, 1795, when it sank to 38° below zero, and in July, 1808, when it rose to 94° in the shade. The barometer averages 29½ inches. A considerable part of the metropolis, viz. the city of Westminster and the borough of Southwark, is below the level of the highest water-mark. The soil, in general sound and dry, the sewers and drains, which convey away all impurities, the broad tide-current of the Thames, the wholesome and abundant supply of provisions, and the precautions for cleanliness, combine to render London, perhaps, the healthiest metropolis in the world. The average duration of human life has increased with the improvements in domestic economy, insomuch that the rates of premiums on life-insurances have universally been lowered. The diseases of London are in nowise peculiar to it as a city. Those of a cutaneous nature are comparatively rare. Many result from the nature of the employment, in manufactures of various kinds; others are the offspring of intemperance. The annual mortality in London, which, in the year 1700, was as 1 in 25, may now be taken at 1 in 40 persons. The number of registered births amounted, in the year ending Dec. 15, 1829, to, males 13,764; females, 13,354; total, 27,118. The number of registered burials, in the same year, was, males, 12,015; females, 11,509; total, 23,524. The table of baptisms does not include the children of Dissenters from the establishment. It was stated, in a meeting lately held for the purpose of forming a grand national cemetery, in London, that the annual interments amounted to about 40,000.—*Civil government.* The chief civic officer of London is the lord mayor, annually elected from among the aldermen on the 29th September. The powers and privileges of this officer are very extensive. The court of aldermen consists of 26 members. They are chosen for life by the householders of the 26 wards into which the city is divided, each being the representative of a several ward. They are properly the subordinate governors of their respective wards, under the jurisdiction of the lord mayor, and preside in the courts of Wardmote for the redress of minor grievances, removing nuisances, &c., assisted by one or more deputies, nominated by them from the common council of the respective wards. Such as have filled the office of lord mayor, become justices of the quorum, and all others are justices of the peace within the city. The sheriffs, two in number, are annually chosen by the livery, or general assembly of the freemen of London. When once elected, they are compelled to serve, under a penalty of £400. The common council is a court consisting of 240 representatives, returned by 25 of the wards, in proportion to their relative extent; the 26th, or *Bridge Ward Without*, being represented by an alderman. The general business of this court is to legislate for the internal government of the city, its police, revenues, &c. It is convened only on summons from the lord mayor, who is an integral member of the court, as are the aldermen also. The decisions are, as in other assemblies, dependent on a majority of voices. The recorder is generally a barrister of eminence, appointed, for life, by the lord mayor and aldermen, as principal assistant and adviser to the civic magistracy, and one of the justices of Oyer and Terminer, for which services he is remunerated with a salary of £2000 per annum from the city revenues. The subordinate officers are the chamberlain, town clerk, common sergeant, city remembrancer, sword bearer, &c. The livery of London is the aggregate of the members of the several city companies, of which there are 91, embracing the various trades of the metropolis. They constitute the elective body, in whom resides the election, not only of all the civil officers, but also of the four members who represent the city in parliament. The local jurisdiction of Westminster is partly vested in civil, partly in ecclesiastical officers. The high steward has an under-steward, who officiates for him. Next in dignity and office are the high bailiff and the deputy bailiff, whose authority resembles that of a sheriff, in summoning juries and acting as returning officers at the election of members of parliament, of whom the city of Westminster returns two. These officers are chosen by the dean and chapter of Westminster, and appointed for life. The borough of Southwark is one of the city wards, and denominated *Bridge Ward Without.* It is subject to the jurisdiction of the lord mayor. It returns two members to parliament. The military force supplied by London comprises two regiments of militia, amounting to 2200 men, whom the city is authorized to raise by ballot; the officers being appointed by the commissioners of the king's lieutenancy for the city of London, according to a parliamentary act in 1794. The year 1829 witnessed the almost entire remodeling of the ancient system of police and nightly watch. These latter guardians of the public were heretofore appointed by the several wards in the city district, and by the parochial authorities in other parts of the metropolis. But a recent act of parliament established a body of metropolitan police, divisioned and disciplined somewhat like the *gens d'armerie* of France, and subjected to the control of a board, consisting of three commissioners, who superintend and are responsible for all acts of their inferiors. The metropolis being subdivided into sections, each has a station or watch-house, and a company of police, consisting of 1 superintendent, 4 inspectors, 16 sergeants, and 144 police constables. They are dressed in a blue semi-military uniform, and are on duty at all hours, night and day. This new police commenced its duties, in several of the parishes of Westminster, on Sept. 29, 1829, and is becoming gradually extended to the other districts. The present number employed is estimated at 5000 men. But the city retains its special establishments, under the control of its own magistracy. It comprises marshalmen, day and night patrols, constables, watchmen and street-keepers, altogether amounting to 800 or 900 men, appointed by the several wards. The principal city police offices are at the Mansion house and Guildhall, where aldermen preside in rotation. In the districts not within the city jurisdiction, there are eight different offices, presided over by 27 magistrates, usually selected from among the barristers. There are also 100 foot-patrols, and, in winter, 54 horse-patrols, the former continually, the latter only by night, protecting the streets and environs of the metropolis. Independent of these is the Thames police, established in 1798, for the protection of persons and property connected with the shipping, from Vauxhall bridge to Woolwich. The chief office is at Wapping, and the importance of such an establishment may be estimated, by considering that there are upwards of 13,000 vessels of various sizes engaged on this river, annually discharging and receiving more than 3,000,000 packages of goods of every description. The chief prison for criminals is Newgate in the Old Bailey. It is the common gaol for London and Middlesex. The number of its inmates varies from 900 to 350. The Compter is situated in Giltspur street, close to Newgate, and destined for the reception of vagrants and persons committed previous to examination, or as a house of correction for the confinement of persons sentenced to hard labor or imprisonment. Clerkenwell prison, in Spafields, receives prisoners of every description, for the county of Middlesex. Its average number of inmates is about 200. The Fleet prison, in what was lately Fleet market, is a receptacle for debtors and persons guilty of what is technically called *contempt* of the court of chancery. It is intended to remove this nuisance, and to build a substitute in St. George's fields, in the Borough. The prison usually contains 250 indwellers, and keeps ward of about 60 out-patients, i. e. prisoners privileged to live within the *rules*. The King's Bench prison is a spacious gaol for debtors and minor criminals. It has about 200 separate apartments. The other prisons of note are in Southwark, viz. Horsemonger lane or the Surrey county gaol, appropriated to felons and debtors; the Borough Compter, for various classes of offenders; the New Bridewell, erected in 1829, near Bethlehem hospital, as a house of correction, in which the prisoners are chiefly employed at the tread-mill; and the Marshalsea prison, in Blackman street, for persons committed by the Marshalsea court. The principal houses of correction are the Bridewell hospital, Cold Bath fields, and the penitentiary at Milbank. The ecclesiastical division of London comprises 97 parishes within the walls, 17 without, 10 in Westminster, besides 29 out-parishes in Middlesex and Surrey. It contains one cathedral (St. Paul's), one collegiate church (Westminster abbey), 130 parish churches, and 70 Episcopal chapels; nearly 200 places of worship belonging to Protestant Dissenters; 18 churches or chapels of foreign Protestants, viz. 1 Armenian, 1 Danish, 2 Dutch, 5 French, 7 German, 1 Swiss, and 1 Swedish; 6 meeting-houses of the Friends (or Quakers); 10 British Roman Catholic chapels; 5 ditto for foreigners of that persuasion, viz. 1 Bavarian, 1 French, 1 German, 1 Sardinian, 1 Spanish; and 6 Jewish synagogues, one of which is for Portuguese, and another for German Jews. (Westminster abbey and St. Paul's cathedral are described in separate articles.) London owes not merely its magnificent cathedral, but 53 other churches, to sir Christopher Wren. The multiplication of churches has nearly kept pace with the rapid extension of the metropolis. The commissioners, appointed for the purpose, are gradually removing the stigma upon an opulent church establishment, that religious accommodation was unprovided for the poor. Many of the churches possess much architectural beauty. There are, in London, 45 free schools, endowed in perpetuity, for educating and maintaining nearly 4000 children, 17 for pauper or deserted children, and about 240 parish schools, in which clothing and education are supplied to about 12,000 children. The chief public endowments, of the first description, are, St. Paul's school, Christ's hospital, Westminster school, Merchant Tailors' school, and the Charter house. St. Paul's school, founded in 1509, bestows a classical education upon 153 pupils. Christ's hospital, founded by Edward VI, in 1547, can accommodate about 1100 children, of both sexes, who are clothed, boarded and educated for seven years. Some of the boys are prepared for the university, most of them for commerce. Westminster school, founded in 1560 by queen Elizabeth, receives a large number of pupils of high rank and respectability. Merchant Tailors' school, founded by the company of merchant tailors in 1561, educates about 300 pupils at a very low rate of payment. The company nominate to 46 fellowships in St. John's college, Oxford. The Charter house, endowed in 1611, supports and educates scholars for the university (where they receive a liberal annuity), or for commerce, besides instructing about 150 other pupils. Many other charitable institutions for education are supported by voluntary contribution, as are, also, the parochial schools, which usually provide clothing and elementary instruction for the poor children of the respective parishes. The children of these schools are annually assembled in the vast area of St. Paul's, on the first Thursday in June. The central national school, with its 40 subsidiary schools in London, educates there about 20,000 children. The British and foreign school society, at its central and subsidiary schools, of which there are, in London, 43, educates about 12,000 children. The Sunday schools, taught by about 5000 gratuitous teachers, instruct between 60,000 and 70,000 children. The foundling hospital is capable of receiving about 200 children. There are also orphan asylums, an asylum for the deaf and dumb, one for the indigent blind, and many others. Alms-houses are numerous. There is a small debt relief society, a mendicity society, a philanthropic society for giving employment to the industrious poor, a prison discipline society, &c. There are also various hospitals; St. Thomas's, with 490 beds; St. Bartholomew's, capable of accommodating between 400 and 500 patients; Guy's hospital, with 400 beds; St. George's, with 350; Middlesex hospital, able to contain 300 patients; the London hospital; small-pox hospital; various lying-in hospitals, &c. The Bethlehem hospital and St. Luke's hospital receive insane patients. The humane society has 18 receiving-houses in different parts of London, with apparatus for restoring suspended animation. Dispensaries relieve more than 50,000 patients annually. There are at least 30 of them, besides 12 for the sole purpose of vaccination. The college of physicians and the college of surgeons examine candidates for the professions of physic and surgery, in the metropolis and the suburbs. The museum of the latter body contains the collections of the celebrated John Hunter, amounting to 20,000 specimens and anatomical preparations. The apothecaries' company grant certificates, without which no one can practise as an apothecary in England or Wales. The number of booksellers and publishers is more than 300. The number of newspapers is 55. (See *Newspapers.*) The British museum (q. v.) is a spacious brick structure, in the French style of architecture. It was, originally, the palace of the first duke of Montague, built in 1677; its dimensions, 216 ft. length by 70 ft. depth, and 57 ft. height. The ground floor is appropriated solely to the reception of the library of printed books. The principal or upper floor contains the miscellaneous articles of curiosity for public inspection; such as collections of minerals, lavas, volcanic productions, shells, fossils and zoölogical specimens, British and foreign, and also various articles from the South sea Islands, and North and Western America, &c. The ground floor is connected with a more modern building, called the *gallery of antiquities*, divided into 15 apartments, in which are distributed nearly 1000 pieces of sculpture, Greek and Roman, a fine collection of *terra cottas*, Roman sepulchral urns, *cippi*, *sarcophagi*, &c. In a temporary room are deposited the Elgin marbles, purchased by government for £35,000. The upper floor of this gallery contains the collections of Herculanean and Pompeian antiquities made by sir William Hamilton, cabinets of coins and medals, and also a rare collection of prints and engravings by the most eminent artists. The present building is destined to be razed to the ground as soon as a splendid edifice, now constructing, is completed. There are various other public libraries. King's college (q. v.) was founded in 1828. The London university, founded in 1825, is not a chartered institution. Its course of instruction comprehends languages, mathematics, physics, ethics, law, history, political economy and medical science, communicated in public lectures, examinations by the professors, &c. The building is yet incomplete, the central part alone being finished, which extends 400 feet in length, and 200 in depth. The front, to Gower street, is a handsome façade, adorned with the noblest portico in London, of 12 Corinthian columns, ascended by a flight of steps, surmounted by a dome and lantern. On the principal floor is a spacious examination hall, a museum of natural history, a museum of anatomy, professors' apartments, a grand library, 120 feet by 50, and a smaller library, 41 feet by 22; and at each end is a semicircular theatre for lectures, 65 feet by 50. The ground floor is portioned into lecture-rooms, cloisters, two theatres, chemical laboratory, museum, offices and council-room. The number of students, in this university, in the year 1829, was 680. The royal society of literature was instituted in 1823; the royal society for improving natural knowledge, in 1663; the society of antiquaries, in 1572; the royal institution, in 1800, for diffusing mechanical knowledge, and the application of science to the various purposes of life; the society of arts, in 1574, to award premiums and bounties to useful inventions and discoveries; the royal academy, in 1768, for the promotion of the fine arts. It provides students with busts, statues, pictures and living models, and has professors of painting, architecture, anatomy, perspective and sculpture. Their annual exhibition of new paintings, drawings, sketches, sculptures, &c., the admission to which is one shilling per head, averages £6000 per annum, and supports all the expenses of the establishment. There are several other societies for the promotion of the fine arts, and the private collections of works of art are numerous and splendid. The number of theatres and amphitheatres is 12, of which the principal are, the King's theatre or Italian opera-house, Drury lane and Covent garden theatres. Vauxhall gardens are a favorite place of summer resort for the lovers of music, singing and fireworks. The principal promenades are St. James's park, Green park, Hyde park (q. v.), (which comprises nearly 400 acres) Kensington gardens, and the Regent's park, which is laid out in shrubberies and rich plantations, adorned by a fine piece of water, studded with villas and intersected by rides and promenades. The Zoölogical gardens, in this park, contain many different sorts of animals, in paddocks, dens or aviaries. The commerce of London was so extended, even in the fourth century, that 800 vessels were employed in its port, for the exportation of corn only. In the seventh century, it is characterized by Bede as the emporium of traffic to many nations; and, in the twelfth century, it appears that the products of Arabia and the East were largely imported. In the thirteenth century, the company of merchant adventurers was incorporated by Edward I; in the sixteenth, the Russia company received its charter from Mary, which was confirmed by her successor, Elizabeth; and the Levant or Turkey company was established. The increase of commerce in this century led, also, to the erection of the royal exchange, by sir Thomas Gresham. The beginning of the seventeenth century witnessed the first patent granted to the East India company, the incorporation of the company of Spanish merchants, and the establishment of assurance and insurance companies. (See *Companies*, and *Commerce of the World.*) The number of vessels belonging to the port of London, in 1701, was 560 ships, containing 84,882 tons; in 1829, 2663 ships, containing 572,835 tons. The value of the imports and exports of London, in 1806, was £36,527,000; in 1829, £107,772,805. The customs of London amounted, in 1710, to £1,268,095; in the year ending July 5, 1829, to £15,597,482; ditto, 1830, to £16,385,049. The number of vessels employed in the coasting trade, was, in 1796, 11,176; in 1827, 17,677. The number of vessels employed in the foreign trade, in 1827 was, British, 4012; foreign, 1534; total, 5546; in which it is calculated, that one sixth of the tonnage and one fourth of the men were employed in the East India trade, and one sixth of the tonnage and one third of the men in the West India trade. The vessels employed in the river navigation, in 1827, were 3000 barges, 350 punts, and 3000 wherries, the total tonnage of which was 110,000 tons, employing 8000 men. There are 50 steam-vessels, of different descriptions, belonging to the port of London, and the year 1830 is remarkable for the successful voyage of the first steam-packet from India. The custom-house, in Lower Thames street, is a spacious building. The principal front to the river presents a façade of 480 feet in length; the depth is 100 feet; and the principal or Long room is 180 feet by 60. The building affords accommodation to 650 clerks and officers, besides 1000 landing waiters and servants. The docks of London are on a scale of grandeur commensurate with the extent of its commerce. (See *Docks.*) St. Catharine's docks were commenced in 1827, with a capital, of which £1,000,000 sterling was subscribed by 19 persons only. They communicate with the river by a canal 190 feet long and 45 broad, and cover a surface of 24 acres, originally occupied by 1250 houses, situate between London docks and Tower hill, including St. Catharine's church and hospital. They are calculated to accommodate 1400 merchant vessels, annually, in the wet docks and basin, the former covering 11 acres. The cost of completing these great works was £2,000,000 sterling. In noticing the manufactures and trade of London, we shall merely observe, that as early as the fourteenth century, it was celebrated for its excellent cloths and furs, the skinners and cloth-workers forming a numerous and wealthy class of citizens. In the sixteenth century, the manufacture of fine glass, silk stockings, knives, pins, needles, pocket-watches and coaches, was extensively established. In the seventeenth, it was noted for the manufacture of saltpetre; and the silk manufactures, on an extensive scale, commenced under the industrious French refugees, great numbers of whom settled in Spitalfields, after the revocation of the edict of Nantes. The printing of calicoes was also commenced, and weaving-looms were introduced from Holland. From that time to the present, the productions of London have increased with extraordinary rapidity, and include every article of elegance and utility. No city can boast more splendid shops, or in greater number, than London; these, with the vast warehouses in the city, where the wholesale trade is chiefly carried on, excite the astonishment of foreigners. Previously to the year 1694, the pecuniary transactions of London were chiefly carried on by the aid of the wealthy goldsmiths, who were the principal bankers during the disturbances of the civil wars. In 1694, the bank of England was incorporated, under the title of the *governor and company of the bank of England*, in consideration of a loan of £1,200,000 advanced to government, at the rate of £8 per cent. The amount of bank-stock capital, in the year 1750, was £10,780,000; it is now £14,553,000. The average price, during the year 1829, was £213. (See *Bank.*) In no part of the world is the post-office system conducted on a scale of such magnitude, excellence, security, and speed of communication, as in England. The general post-office, in London, is a magnificent building. The increase of revenue, from this department, will be apparent from the following comparative statement:

In 1651, it amounted to £10,000 per ann.
1690, ... 83,319 "
1783, ... 146,000 "
1829, ... 1,337,000 "

It is stated, that the average number of letters which pass through the post-office exceeds half a million weekly: 30,000 letters were put into the post-office on the 26th of June, 1830, the day of king George IV's death. The chief offices of the East India company are comprised within the precincts of the East India house, in Leadenhall street—a spacious edifice, ornamented by an Ionic portico of six columns, and presenting a stately front of 200 feet length. Insurances on ships are chiefly effected by underwriters, whose principal place of resort is Lloyd's coffee-house, on the north side of the royal exchange. Insurances on lives, and against loss of property by fire, are effected by 37 insurance companies. (For the bridges, see *Bridge*). The Thames tunnel was commenced in 1825, and was intended to form a communication, under the bed of the river, between Rotherhithe and Wapping. It was to consist of two parallel archways, each 1300 feet long and 14 feet wide, having the partition wall pierced by a series of arched passages, to allow access from one road to the other. The crown of the tunnel is 15 feet below the bed of the river, and the approaches are formed by spiral descents of easy declivity. The progress of the work is suspended at present; but the portion of it complete extends above 600 feet in length, and is accessible to visitors. If ever it be finished, it will form one of the most extraordinary substructions of ancient or modern times. The projector was Mr. Brunel, a skilful and enterprising engineer. The Monument, on Fish street hill, is a lofty column of the Doric order, erected to commemorate the dreadful fire of London, in 1666. Sir Christopher Wren furnished the design. The altitude is 202 feet from the pavement, the diameter of the shaft 15 feet, the pedestal 40 feet high, and its plinth 28 feet square. The inscription, ascribing the fire to the Catholics, has been lately effaced. Besides the public edifices already noticed, are the new palace of Buckingham house, Westminster hall, the council office, the banqueting house at Whitehall, and private residences, Melborne house (Whitehall), and Burlington house (Piccadilly). St. James's palace, Pall mall, is an irregular brick building, originally built as an hospital for lepers. Though totally destitute of external beauty, its internal arrangements are well calculated for state purposes, and it contains many spacious and superb apartments, where the royal court levees and drawing-rooms are held. The archiepiscopal palace of Lambeth is a pile of great antiquity, forming the town residence of the archbishops of Canterbury, and at present being almost entirely rebuilt. The grounds are extensive and beautifully laid out. It contains, among other apartments, a chapel, gallery, library, containing 25,000 volumes, and the Lollards' tower, used in popish times as a prison for the reformers of that designation. The Admiralty is fronted by a lofty and most ill-proportioned Ionic portico, and separated from Whitehall by a light screen. It contains the offices and residences of the commissioners of the admiralty, and is near the Horse-guards, a hideous edifice, wherein the commander-in-chief holds his levees, and transacts military affairs. An arched gate-way communicates with St. James's park. The house of lords, in Old Palace yard, is not remarkable for architectural beauty. The peers assemble in a room, the walls of which are hung with tapestry representing the defeat of the Spanish armada. The house of commons holds its meetings in an ancient chapel, called *St. Stephen's*, adjoining Westminster hall, plainly fitted up, and affording but stinted accommodation for the 650 members of whom that body is composed. It was originally founded by king Stephen, and rebuilt by Edward III, in 1347. It communicates with the speaker's house, a commodious and handsome residence. The Tower of London is an extensive pile, situated on the northern bank of the Thames, below London bridge, separated from the river by a platform, and environed by a ditch of considerable depth and width. Its walls enclose an area of 12 acres, having the principal entrance on the west. (See *Tower*.) The general destination of the Tower was altered on the accession of queen Elizabeth, for it had been a royal palace during 500 years previous to that event. Another class of edifices, partaking somewhat of a public character, are the club-houses, situated, chiefly, within the precincts of St. James's street, Pall mall, and Regent street. Crockford's, in St. James's street, is unrivalled in the splendor of its internal decorations, and presents an external elevation of chaste architectural elegance; but its object is avowedly gambling, and its fascinations have been the ruin of many. The athenæum is a very beautiful structure, erected by Mr. Burton on part of the site of Carlton palace, and opposite to the senior united service club. The university, the union, the oriental, Brookes', and the junior united service club houses, are also handsome and commodious.—*Ancient London.* The origin of London is involved in deep obscurity; but it certainly was a strong-hold of the Britons before the Roman invasion. The etymology of its name is variously traced; the most probable supposition deriving it from two British words, *llyn* and *din*, signifying the town on the lake. Its Roman designation, *Augusta*, marks it as the capital of a province; and Tacitus speaks of *Londinium*, or *Colonia Augusta*, as a commercial mart of considerable celebrity in the year 61. It was subsequently noted as a large and wealthy city, in the time of the emperor Severus, and regarded as the metropolis of Great Britain. A few vestiges of the original walls are still discoverable in London wall, in the courts between Ludgate hill and the Broadway, Blackfriars, and in Cripplegate churchyard. It had four principal gates, opening to the four great military roads, and others were subsequently formed, but their names alone commemorate their existence. After the Roman forces had been withdrawn from Britain, in the fifth century, London fell successively under the dominion of the Britons, Saxons, and Danes. It was nominated a bishop's see, on the conversion of the Saxons to Christianity, in 604, and a cathedral church was erected in 610, where St. Paul's now stands. Its importance in the year 833, appears from a *Wittenagemot* having been held here; and under the reign of Alfred, who gained possession of it in 884, its municipal government was planned, which has since been gradually moulded into the form described in a preceding part of this notice. Its wealth seems to have rapidly increased during the reign of Edward the Confessor; and, on the conquest by William I, in 1066, it assumed that station which it has ever since retained, as the metropolis of the kingdom, having received from that monarch a charter, still preserved in the city archives, and beautifully written in Saxon characters. The privileges of the city were further extended by a charter of Henry I, in 1100; and, early in the reign of Richard I, the title of *mayor* was substituted for that of *bailiff*, which had previously designated the chief magistrate of London. In the reign of Edward III (1348), it was ravaged by a pestilence, during which 50,000 bodies were interred in the ground now forming the precincts of the Charter house. The year 1380 was marked by the insurrection headed by Wat Tyler, and suppressed by the courage of sir William Walworth, mayor of London. A similar, but equally unsuccessful attempt, threatened the safety of the metropolis in the year 1450, when it was assailed by Jack Cade and a powerful body of malecontents. During the reign of Edward IV, we have the earliest notice of bricks being employed in the building of houses in London. Cisterns and conduits for water were constructed, and the city was generally lighted at night by lanterns. A dreadful visitation, called the *sweating-sickness*, desolated the city in 1485, soon after the accession of Henry VII, during whose reign the river Fleet was made navigable to Holborn bridge, and the splendid chapel, called after that monarch, was appended to Westminster abbey. Many valuable improvements in the municipal regulations of the city, its police, streets, markets, &c., were effected during the reign of his successor, Henry VIII. The reign of Edward VI witnessed the establishment of Christ's hospital, Bridewell, and St. Thomas's hospital; and, under the sway of Elizabeth, the metropolis increased, with surprising rapidity, in commercial enterprise and general prosperity. The plague renewed its ravages soon after the accession of James I, in 1603, when upwards of 30,000 persons fell victims to it. Sir Hugh Middleton, about that time also, commenced his great work of supplying the inhabitants with water from the New river; and the pavements were improved for the comfort of pedestrians. The reign of Charles I was marked by a recurrence of the plague, which carried off 35,000 of the inhabitants. It returned in the year 1665, with unparalleled fury. This awful visitation swept away 100,000 of the inhabitants within 13 months. It was shortly after followed by the great fire, which broke out on the 2d September, 1666, and raged with irresistible fury, until it consumed 89 churches, 13,200 dwelling-houses, and 400 streets, the city gates, Guildhall, numerous public structures, hospitals, schools, libraries and stately edifices, leaving a ruined space of 436 acres, from the Tower to the Temple church, and from the north-east gate, along the city wall, to Holborn bridge, and destroying property to the estimated amount of £10,000,000. Within less than five years after this terrible calamity, the city was almost wholly rebuilt, in a style of far greater regularity, security, commodiousness and salubrity. After the revolution of 1688, the metropolis rapidly expanded, and, in 1711, the population was found to have so greatly increased, that an act of parliament passed for the building of 50 new churches. The winter of 1739—40 is memorable for the occurrence of the most intense frost recorded in the annals of England; it continued for eight weeks, and the Thames, above London bridge, became a solid mass, on which thousands of the citizens assembled daily as to a fair. The reign of George III witnessed a great extension of the splendor, comforts and elegances of social life in London. The north of the metropolis became covered with spacious streets, squares, churches and public edifices. The thoroughfares were rendered safe and clean; the enormous signs and protruding incumbrances of the shops were removed. Blackfriars, Southwark and Waterloo bridges, Somerset house, Manchester, and other squares, at the West End, were erected, and the vast parish of Marylebone almost covered with buildings. In 1780, an insurrection, composed of the lowest rabble, threatened very alarming consequences to the peace of the city. The prisons of Newgate, the King's Bench and the Fleet were burned, and military interference was necessary to quell the disturbances. In 1794, a dreadful fire broke out in Ratcliffe highway, and consumed 700 houses. The jubilee of George III's accession was commemorated on the 25th October, 1809, and the grand civic festival to the emperor of Russia, king of Prussia, and other distinguished foreigners, was given, by the corporation of London, in Guildhall, at an expense of £20,000, in the year 1814, the winter of which was memorable for a frost of six weeks' continuance and extreme intensity. During the regency and reign of George IV, the grand avenue of Regent street, the unfinished palace of Buckingham house, the splendid terraces on the site of Carlton gardens, the widenings of Charing cross, Pall mall, and the Strand, wrought a great change in the West End of the metropolis. Much curious information upon the history, antiquities and progressive improvements of London will be found in the works of

Stowe and Maitland, in Pennant's "Some Account of London," and in the work of Brayley, Brewster and Nightingale, entitled "London, Westminster and Middlesex described," in 5 vols. 8vo.

Londonderry, Robert Stewart, marquis of, the second son of the first marquis, was born in the north of Ireland, June 18, 1769, and was educated at Armagh, after which he became a commoner of St. John's college, Cambridge. On leaving the university, he made the tour of Europe, and, on his return, was chosen a member of the Irish parliament. He joined the opposition, in the first place, and declared himself an advocate for parliamentary reform; but, on obtaining a seat in the British parliament, he took his station on the ministerial benches. In 1797, having then become lord Castlereagh, he returned to the Irish parliament, and, the same year, became keeper of the privy seal for that kingdom, and was soon after appointed one of the lords of the treasury. The next year, he was nominated secretary to the lord-lieutenant, and, by his strenuous exertions, and abilities in the art of removing opposition, the union with Ireland was greatly facilitated. In the united parliament, he sat as member for the county of Down, and, in 1802, was made president of the board of control. In 1805, he was appointed secretary of war and the colonies; but, on the death of Mr. Pitt, he retired, until the dissolution of the brief administration of 1806 restored him to the same situation in 1807; and he held his office until the ill-fated expedition to Walcheren, and his duel with his colleague, Mr. Canning, produced his resignation. In 1812, he succeeded the marquis of Wellesley as foreign secretary, and the following year proceeded to the continent, to assist the coalesced powers in negotiating a general peace. His services after the capture of Napoleon, and in the general pacification and arrangements which have been usually designated by the phrase the *settlement of Europe*, form a part of history. It is sufficient to notice here, that he received the public thanks of parliament, and was honored with the order of the garter. On the death of his father, in April, 1821, he succeeded him in the Irish marquisate of Londonderry, but still retained his seat in the British house of commons, where he acted as leader. After the arduous session of 1822, in which his labor was unremitting, his mind was observed to be much shattered; but, unhappily, although his physician was apprized of it, he was suffered to leave London for his seat at North Cray, in Kent, where, in August, 1822, he terminated his life by inflicting a wound in his neck, with a penknife, of which he died almost instantly. This statesman has been censured for a severe, rigid, and persecuting domestic government, and for an undue countenance of despotic encroachment and arrangement as regards the social progress of Europe. His party and supporters, in answer to these strictures, for the most part, plead political necessity and expediency, while no small portion of them defend his views on the ground of principle. He was an active man of business, and a ready, although not an elegant orator. His remains were interred, in Westminster abbey, with great ceremony, but not without an exhibition of popular ill-will. (See *Mem. of the late Marquis of Londonderry*, London, 1829.) He was succeeded in his title by his half-brother, lieutenant-colonel lord Stewart, who was, for some time, ambassador to Prussia, and afterwards to Vienna. His lordship is author of a Narrative of the Peninsular War (second edition, London, 1828), and a Narrative of the War in Germany and France, in 1813 and 1814, and is a member of the British house of peers, as earl Vane.

Longchamp; a promenade of the Parisian fashionables, on the right bank of the Seine, about four miles below the capital. It was once a convent, founded by Isabella, sister of St. Louis, where she spent her last years, and terminated her life, Feb. 22, 1269. The convent was then called the *Abbaye de l'humilité de Notre Dame*, and the credulity of the times ascribed to the bones of Isabella, who was buried there, such miraculous powers, that Leo X canonized her in 1521. 116 years after, the bones of Isabella, with the permission of Urban VIII, were collected in the presence of the archbishop of Paris, and, like other relics, set in gold and silver. Two other princesses of France also died there—Blanche, daughter of Philip the Long, who likewise ended his life at this place, Jan. 3, 1321, and Jeanne of Navarre. Previous to the revolution, Longchamp was a place of resort of the Parisian *beau monde* and of the English. It is still related, that on those days when it was a part of *bon ton* to repair thither (Wednesday, Thursday and Friday of Passion week), some of the English carried their luxury so far, as to make the shoes of their horses and the tires of their coach wheels of silver, on these promenades. In the beginning of the revolution, when the abbey of Longchamp, like the monasteries of France in general, was abolished, and the buildings partially demolished, the splendor of this place was destroyed; but under the consulate, when wealth again dared to display itself openly, Longchamp recovered its ancient brilliancy, and again offered the Parisian ladies an opportunity of exhibiting their charms. Tallien and Recamier were then the stars in this firmament of fashion and beauty. Under the imperial government, the splendor of Longchamp was somewhat diminished, owing partly to Napoleon's contempt for frivolous exhibitions, partly to the continued wars, which withdrew great numbers of rich young men from the capital. After the restoration, the promenade of Longchamp was almost wholly neglected. But more recently, it has again recovered some of its former splendor.

Longevity. The extreme limit of human life, and the means of attaining it, have been a subject of general interest, both in ancient and modern times, and the physiologist and political economist are alike attracted by the inquiry. It is for the student of biblical antiquities to decide in what sense we are to understand the word *year* in the scriptural accounts of the antediluvians; whether it signifies a revolution of the sun or of the moon, or whether their extreme longevity is only the creation of tradition. In the sense which we now give to the word *year*, the accounts would make the constitution of men at the period referred to, very different from what it is at present, or has been, at any period from which observations on the duration of human life have been transmitted to us. The results of all these observations, in regard to the length of life in given circumstances, do not essentially differ. Pliny affords some valuable statistical information, if accurate, regarding the period at which he lived, obtained from an official, and, apparently, authentic source,—the census, directed by the emperor Vespasian, in the year 76 of the Christian era. From this we learn that, at the time of the computation, there were, in the part of Italy comprised between the Apennines and the Po, 124 individuals aged 100 years and upwards, viz. 54 of 100 years, 57 of 110, 2 of 125, 4 of 130, 4 of 135 to 137, and 3 of 140. At Parma, a man was living aged 120, and 2 aged 130; at Faenza, a female aged 132; and at a small town near Placentia, called Velleiacium, lived 6 persons aged 110 years each, and 4 of 120. These estimates, however, do not accord with those of Ulpian, who seems to have taken especial care to become acquainted with the facts of the case. His researches prove that the expectation of life in Rome, at that time, was much less than it now is in London, or in any of our cities. Hufeland, indeed, in his *Macrobiotics*, asserts that the tables of Ulpian agree perfectly with those afforded by the great cities of Europe, and that they exhibit the probabilities of life in ancient Rome to have been the same as those of modern London. But doctor F. Bisset Hawkins, in his Elements of Medical Statistics (London, 1829), says that the tables, kept by the censors for 1000 years, and constituting registers of population, sex, age, disease, &c., according to Ulpian (who was a lawyer, and a minister of Alexander Severus), refer only to free citizens, and that, to draw a just comparison between Rome and London, it would be necessary to take, among the inhabitants of the latter city, only those who were similarly circumstanced, viz. those whose condition is easy; in which case, the balance would be greatly in favor of modern times. Mr. Finlayson has ascertained, from very extensive observation on the decrement of life prevailing among the nominees of the Tontines, and other life annuities, granted by the authority of parliament, during the last 40 years, that the expectation of life is above 50 years for persons thus situated, which affords the easy classes of England a superiority of 20 years above even the easy classes among the Romans. The mean term of life among the easy classes of Paris is, at present, 42 years, which gives them an advantage of 12 years above the Romans. In the third century of the Christian era, the expectation of life in Rome was as follows: From birth to 20, there was a probability of 30 years; from 20 to 25, of 28 years; from 25 to 30, 25 years; from 30 to 35, 22 years; from 35 to 40, 20 years; from 40 to 45, 18 years; from 45 to 50, 13 years; from 50 to 55, 9 years; from 55 to 60, 7 years; from 60 to 65, 5 years. Farther than this the computation did not extend. The census taken from time to time in England affords us information of an unquestionable character. The first actual enumeration of the inhabitants was made in 1801, and gave an annual mortality of 1 in 44.8. The third and last census was made in 1821, and showed a mortality of 1 to 58. (See *Abstract of the Answers and Returns made pursuant to an Act passed in the Year of George IV*, &c., by Rickman.) The mortality then had decreased considerably within 20 years. In France, the annual deaths were, in 1781, 1 in 29; in 1802, 1 in 30; in 1823, 1 in 40. In the Pays de Vaud, the mortality is 1 to 49; in Sweden and Holland, 1 to 48; in Russia, 1 to 41; in Austria, 1 to 38. Wherever records have been kept, we find that mortality has decreased with civilization. Perhaps a few more persons reach extreme old age among nations in a state of little cultivation; but it is certain that more children die, and the chance of life, in general, is much less. In Geneva, records of mortality have been kept since 1590, which show that a child born there has, at present, five times greater expectation of life than one born three centuries ago. A like improvement has taken place in the salubrity of large towns. The annual mortality of London, in 1700, was 1 in 25; in 1751, 1 in 21; in 1801, and the 4 years preceding, 1 in 35; in 1811, 1 in 38; and in 1821, 1 in 40; the value of life having thus doubled, in London, within the last 80 years. In Paris, about the middle of the last century, the mortality was 1 in 25; at present, it is about 1 in 32; and it has been calculated that, in the fourteenth century, it was one in 16 or 17. The annual mortality in Berlin has decreased during the last 50 or 60 years, from 1 in 28 to 1 in 34. The mortality in Manchester was, about the middle of the last century, 1 in 25; in 1770, 1 in 28: 40 years afterwards, in 1811, the annual deaths were diminished to 1 in 44; and, in 1821, they seem to have been still fewer. In the middle of the last century, the mortality of Vienna was 1 in 20; it has not, however, improved in the same proportion as some of the other European cities. According to recent calculation, it is, even now, 1 in 22½, or about twice the proportion of Philadelphia, Manchester or Glasgow. Many years ago, Mr. Finlayson drew up the following table, to exhibit the difference in the value of life, at two periods of the seventeenth and eighteenth centuries. Had it been calculated for 1830, the results would have been still more remarkable.

Ages.	Mean Duration of Life, reckoning from 1693.	Mean Duration of Life, reckoning from 1789.	So that the Increase of Vitality is in the inverse Ratio of 100 to
Years.	Years.	Years.	
5	41.05	51.20	125
10	38.93	48.28	124
20	31.91	41.33	130
30	27.57	36.09	131
40	22.67	29.70	131
50	17.31	22.57	130
60	12.29	15.52	126
70	7.44	10.39	140

The following is the annual mortality of some of the chief cities of Europe and this country:

Philadelphia,	1 in 45.68
Glasgow,	1 in 44
Manchester,	1 in 44
Geneva,	1 in 43
Boston,	1 in 41.26
London,	1 in 40
New York,	1 in 37.83
St. Petersburg,	1 in 37
Charleston,	1 in 36.50
Baltimore,	1 in 35.44
Leghorn,	1 in 35
Berlin,	1 in 34
Paris, Lyons, Barcelona and Strasburg,	1 in 32
Nice and Palermo,	1 in 31
Madrid,	1 in 29
Naples,	1 in 28
Brussels,	1 in 26
Rome,	1 in 25
Amsterdam,	1 in 24
Vienna,	1 in 22½

From Dec. 12, 1828, to Dec. 15, 1829, in London, the whole number of deaths was 23,525. The proportion of deaths, in different ages, was as follows:

Under two years of age,	6710
Between two and five,	2347
Five and ten,	1019
Ten and twenty,	949
Twenty and thirty,	1563
Thirty and forty,	1902
Forty and fifty,	2093
Fifty and sixty,	2094
Sixty and seventy,	2153
Seventy and eighty,	1843
Eighty and ninety,	749
Ninety and one hundred,	95
One hundred and one,	1
One hundred and eight,	2

On the average of eight years, from 1807 to 1814 inclusive, there died annually within the city of Philadelphia and the Liberties, the following proportion of persons, of different ages, compared with the total number of deaths:

	Per Cent.
Under one year,	25.07
From one to two years,	10.71
Two to five,	5.67
Five to ten,	3.00
Ten to twenty,	3.60
Twenty to thirty,	8.63
Thirty to forty,	10.99
Forty to fifty,	7.98
Fifty to sixty,	5.95
Sixty to seventy,	4.29
Seventy to eighty,	3.27
Eighty to ninety,	1.89
Ninety to one hundred,	0.50
One hundred to one hundred ten,	0.0009

Another question of interest is the inquiry in what degree the various trades and professions are favorable to human life, or the contrary. Several statements have lately been published respecting this subject, but farther and more copious observations are required, to afford satisfactory results.* Literary occupations do not appear to be more injurious to long life than many others. Many of the first literati, most distinguished for application throughout life, have attained old age, both in modern and ancient times. In the ancient authors, numerous instances of this kind are recorded, many of which may be found collected in the work of Hufeland, already alluded to.—We will add a few instances of extraordinary longevity. The Englishman Parr, who was born in 1483, married when at the age of 120, retained his vigor till 140, and died at the age of 152, from plethora. Harvey, the distinguished discoverer of the circulation of the blood, who dissected him, found no decay of any organ. (*Philosophical Transactions*, vol. iii, 1698.) Henry Jenkins, who died in Yorkshire, in 1670, is, perhaps, the greatest authentic instance of longevity. He lived 169 years. Margaret Forster, a native of Cumberland, England, died in 1771, aged 136; and James Lawrence, a Scotchman, lived 140 years. A Dane, named Drakenberg, died in 1772, in his 147th year; and John Effingham, or Essingham, died in Cornwall, in 1757, aged 144. In 1792, a soldier, named

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* The Literary Gazette gives, in a tabular form, the results of a work on this subject, from the pen of Mr. Thackrah, an eminent surgeon, of Leeds.—*Out-of-door occupations*. Butchers are subject to few ailments, and these the result of plethora. Though more free from diseases than other trades, they, however, do not enjoy greater longevity: on the contrary, Mr. Thackrah thinks their lives shorter than those of other men who spend much time in the open air. Cattle and horse-dealers are generally healthy, except when their habits are intemperate. Fish-mongers, though much exposed to the weather, are hardy, temperate, healthy and long-lived; cart-drivers, if sufficiently fed, and temperate, the same. Laborers in husbandry, &c., suffer from a deficiency of nourishment. Brickmakers, with full muscular exercise in the open air, though exposed to vicissitudes of cold and wet, avoid rheumatism and inflammatory diseases, and attain good old age. Paviers are subject to complaints in the loins, increasing with age, but they live long. Chaise-drivers, postilions, coachmen, guards, &c., from the position of the two former on the saddle, irregular living, &c., and from the want of muscular exercise, in the two latter, are subject to gastric disorders, and, finally, to apoplexy and palsy, which shorten their lives. Carpenters, coopers, wheelwrights, &c., are healthy and long-lived. Smiths are often intemperate, and die comparatively young. Rope-makers and gardeners suffer from their stooping postures.—*In-door occupations*. Tailors, notwithstanding their confined atmosphere and bad posture, are not liable to acute diseases, but give way to stomach complaints and consumption. The prejudicial influence of their employment is more insidious than urgent: it undermines rather than destroys life. Staymakers have their health impaired, but live to a good age. Milliners, dress-makers and straw-bonnet-makers are unhealthy and short-lived. Spinners, cloth-dressers, weavers, &c., are more or less healthy, according as they have more or less exercise and air. Those exposed to inhale imperceptible particles of dressings, &c., such as frizers, suffer from disease, and are soonest cut off. Shoemakers are placed in a bad posture. Digestion and circulation are so much impaired, that the countenance marks a shoemaker almost as well as a tailor. We suppose that, from the reduction of perspiration, and other evacuations, in this and similar employments, the blood is impure, and, consequently, the complexion darkened. The secretion of bile is generally unhealthy, and bowel complaints are frequent. In the few shoemakers who live to old age, there is often a remarkable hollow at the base of the breast-bone, occasioned by the pressure of the last. Curriers and leather-dressers are very healthy, and live to old age. Saddlers lean much forward, and suffer, accordingly, from headache and indigestion. Printers (our worthy coöperators) are kept in a confined atmosphere, and generally want exercise. Pressmen, however, have good and varied labor. The constant application of the eyes to minute objects gradually enfeebles these organs. The standing posture, long maintained here, as well as in other occupations, tends to injure the digestive organs. Some printers complain of disorder of the stomach and head, and few appear to enjoy full health. Consumption is frequent. We can scarcely find or hear of any compositor above the age of 50. In many towns, printers are intemperate. Bookbinders,—a healthy employment. Carvers and gilders look pale and weakly, but their lives are not abbreviated in a marked degree. Clock-makers are generally healthy and long-lived; watch-makers, the reverse. House servants, in large, smoky towns, are unhealthy. Colliers and well-sinkers,—a class by themselves,

Mittelstedt, died in Prussia, at the age of 112. Joseph Surrington, a Norwegian, died at Bergen, in 1797, aged 160 years. The St. Petersburg papers announced, in 1830, the death of a man 150 years old, at Moscow; and, in 1831, the death of a man in Russia, 165 years old, was reported. On May 7, 1830, died a man named John Ripkey, at the age of 108, in London. His sight remained good till the last. In 1830, a poor man, near lake Thrasimene, died 123 years old. He preserved his faculties to the last. In 1825, pope Leo XII gave him a pension. The late return of the population of the city of New York, according to the census of 1830, makes the number of those who live beyond the allotted three-score and ten, in the proportion of about $1\frac{3}{5}$ per cent. of the whole number. Although the number of white males exceeds that of females 1861, yet, of those who are upwards of 70, 8009, the excess is in favor of the females, there being 4175 of the latter, and but 3834 of the former. Of the 17 white persons above a hundred, 15, on the contrary, are males; and of the 45 black persons, a hundred and upwards, only 11 are males. The proportion of centenarians among the blacks is much larger than among the whites, making all proper allowances for their exaggeration and ignorance.—Belsham's Chronology informs us that 21 persons, who had attained the age of 130 and upwards, died between the years 1760 and 1829: of these, one was aged 166. In the same period, 39 had attained the age of 120, and not 130. The number who attained the age of 110, and not 120, was 36 in the same space. And those who died after the age of 100, and before 110, were 54 within the period. Of the whole number recorded, 94 were natives of England, 23 of Ireland, and 12 of Russia. Doubtless many more have died after the age of 100, without having had their names recorded. The northern climates afford more instances of longevity than the southern; and, although far the greater part of those who have attained extreme old age have been distinguished for sobriety, yet some of them do not appear to have been in the habit of restraining their appetites. In China, where old age is much respected, people receive presents from government, when they have attained a great age.

—seldom reach the age of 50.—*Employments producing dust, odor, or gaseous exhalations.* These are not injurious, if they arise from animal substances, or from the vapor of wine or spirits. Tobacco manufacturers do not appear to suffer from the floating poison in their atmosphere. Snuff making is more pernicious. Men in oil-mills are generally healthy. Brush-makers live to a great age. Grooms and hostlers inspire ammoniacal gas, and are robust, healthy, and long-lived. Glue and size boilers, exposed to the most noxious stench, are fresh-looking and robust. Tallow-chandlers, also exposed to offensive animal odor, attain considerable age. Tanners are remarkably strong, and exempt from consumption. Corn-millers, breathing an atmosphere loaded with flour, are pale and sickly, and very rarely attain old age. Malsters cannot live long, and must leave the trade in middle life. Tea-men suffer from the dust, especially of green teas; but this injury is not permanent. Coffee-roasters become asthmatic, and subject to headache and indigestion. Paper-makers, when aged, cannot endure the effect of the dust from cutting the rags. The author suggests the use of machinery in this process. In the wet and wear and tear of the mills, they are not seriously affected, but live long. Masons are short-lived, dying generally before 40. They inhale particles of sand and dust, lift heavy weights, and are too often intemperate. Miners die prematurely. Machine-makers seem to suffer only from the dust they inhale, and the consequent bronchial irritation. The (iron) filers are almost all unhealthy men, and remarkably short-lived. Founders (in brass) suffer from the inhalation of the volatilized metal. In the founding of yellow brass, in particular, the evolution of oxide of zinc is very great. They seldom reach 40 years. Copper-smiths are considerably affected by the fine scales which rise from the imperfectly volatilized metal, and by the fumes of the spelter, or solder of brass. The men are generally unhealthy, suffering from disorders similar to those of the brass-founders. Tin-plate-workers are subjected to fumes from muriate of ammonia, and sulphureous exhalations from the coke which they burn. These exhalations, however, appear to be annoying, rather than injurious, as the men are tolerably healthy, and live to a considerable age. Tinners, also, are subject only to temporary inconvenience from the fumes of the soldering. Plumbers are exposed to the volatilized oxide of lead, which rises during the process of casting. They are sickly in appearance, and short-lived. House-painters are unhealthy, and do not generally attain full age. Chemists and druggists, in laboratories, are sickly and consumptive. Potters, affected through the pores of the skin, become paralytic, and are remarkably subject to constipation. Hatters, grocers, bakers and chimney sweepers (a droll association) also suffer through the skin; but, although the irritation occasions diseases, they are not, except in the last class, fatal. Dyers are healthy and long-lived. Brewers are, as a body, far from healthy. Under a robust and often florid appearance, they conceal chronic diseases of the abdomen, particularly a congested state of the venous system. When these men are accidentally hurt or wounded, they are more liable than other individuals to severe and dangerous effects. Cooks and confectioners are subjected to considerable heat. Our common cooks are more unhealthy than house-maids. Their digestive organs are frequently disordered: they are subject to headache, and their tempers rendered irritable. Glass-workers are healthy. Glass-blowers often die suddenly.

Longhi, Joseph, engraver, born 1768, in the States of the Church, went, during the political disturbances in Italy (1797), to Milan, where he distinguished himself, and surpassed, in drawing, the famous Morghen. No living engraver is able to represent flesh with such truth. He is master of every species of engraving, but subjects technical science to the true object of the art. In the style which combines etching with the application of the burin, he surpasses the most distinguished of his predecessors. In this department, are his Philosopher, from Rembrandt, and Dandolo, from Mettrini. His Magdalen, after Correggio, represents, with an almost indescribable exactness, the softness and transparency of tint admired in the original. His Galatea floating in a shell, from a painting by Albano, is equally excellent. Raphael's Vision of Ezekiel he has also engraved in a masterly manner. His original pieces, as, for instance, Pan pursuing Syrinx, from the first book of Ovid's Metamorphoses (finished in 1814) have also been much admired. His Raphael's Marriage of the Holy Virgin is worthy of the original, and is one of the finest engravings of our times. Some fragments, which have been published, of his History of the Art of Engraving, have also given him a reputation as a writer on this subject. Eugene Beauharnais, when viceroy of Italy, appointed Longhi professor at the academy of art in Milan, where he has formed several excellent scholars; he also received from that prince the order of the iron crown.

Longimetry; the measuring of lengths or distances, both accessible and inaccessible. Accessible distances are measured by the application of some measure a certain number of times, as a foot, chain, &c. And inaccessible distances are measured by taking angles, &c., by means of proper instruments, as the *circumferentor*, *quadrant*, *theodolite*, &c. This embraces a great number of cases, according to the situation of the object and observer.

Longinus, Cassius; a Platonic philosopher and celebrated rhetorician of the middle of the third century, A. D. According to some accounts, he was born at Emesa, in Syria; according to Ruhnken, Athens was his birth-place. Greek literature was the principal subject of his studies. At Alexandria, Athens, etc., he attended the lectures of the most distinguished scholars. He studied the Stoic and Peripatetic systems of philosophy, but subsequently became an ardent adherent of the Platonic, and annually celebrated the birth-day of its founder, by a banquet. His principal attention was directed, however, to the study of grammar, criticism, eloquence and antiquities. At the invitation of queen Zenobia, he went to Palmyra to instruct her in Greek learning and to educate her children. He was likewise employed by her in the administration of the state, by which means he was involved in the fate of this queen. For when Zenobia was taken prisoner by the emperor Aurelian, and could save her life only by betraying her counsellors, Longinus, as the chief of them, was seized and beheaded, A. D. 275. He suffered death with all the firmness of a philosopher. Of his works, among which were some philosophical ones, none is extant, except the treatise On the Sublime, which goes under his name, and this is in a state of mutilation. It illustrates, with great acuteness and taste, the nature of the sublime in thought and style, by rules and examples. The best editions are those of Pearce (1724), of Toup and Ruhnken (Oxford, 1778). Benj. Weiske's edition appeared at Leipsic, 1809. There is an English translation of it by Wm. Smith. Longinus is usually called *Dionysius*, but this has arisen from the negligence of editors. The manuscript copy of the treatise On the Sublime, in Paris, and one in the Vatican, bear the inscription in Greek, *By Dionysius or Longinus*, which appeared in the first printed copies as *Dionysius Longinus*. The Florence manuscript bears the inscription *Anonymous*. Some critics have ascribed the work to Dionysius of Halicarnassus, others to another Longinus, while others confess that the author is uncertain.

Long Island, or **Nassau Island**; an island belonging to the state of New York, extending 120 miles in length, and varying from 10 to 20 miles in breadth. On the west, it is divided from Staten Island by the Narrows, and from Manhattan Island by East river. On the north, East river and Long Island sound separate it from the main land. Its eastern extremity is Montauk point. On the south, it is washed by the ocean. Lon. 71° 47′ to 73° 57′ W.; lat. 40° 34′ to 41° 10′ N. Like other insular positions, its climate is more mild than that of the adjacent continent. The island is divided into three counties—King's, Queen's and Suffolk. Sag Harbor is the principal port. The south side of the island is flat land, of a light, sandy soil, bordered, on the sea coast, with large tracts of salt meadow. The soil, however, is well calculated for raising grain, especially Indian corn. The north side of the island is hilly, and of a strong soil, adapted to the culture of grain, hay, and fruits; and the eastern part is remarkably adapted to the growth of wood, and supplies, in great part, the city of New York with this article. This ridge forms Brooklyn and other heights, known in the revolutionary war. The principal towns and villages on the island are Brooklyn, Jamaica, Sag Harbor, Flatbush, Flushing, Satauket and Huntington.

Long Island Sound; a bay, from 3 to 25 miles broad, and about 120 long, extending the whole length of Long Island, and dividing it from Connecticut. It communicates with the ocean at both ends, and may be considered as extending from New York on the west to Fisher's Island on the east. On its northern shore are the towns of Greenwich, Stamford, Fairfield, Bridgeport, Milford, New Haven, Saybrook, New London, Stonington, &c. It receives the Connecticut, Housatonic, Thames and other rivers.*

Longitude, Geographical; the distance measured, according to degrees, minutes, seconds, &c., on the equator, or a parallel circle, from one meridian to another, which is called the first, or prime meridian. Longitude is divided into eastern and western. It is altogether indifferent through what point we draw the first meridian, but it must be settled what point we adopt. In Germany, the Island of Ferro (q. v.) is generally adopted; in France, the observatory at Paris; in England, that of Greenwich; in Berlin, that of Berlin; in the U. States, the meridian of Washington is sometimes taken as a first meridian. Some geographers reckon from the first meridian 180 degrees west, and the same number east; others, on the contrary, reckon the longitude from the west to the east, the whole length of the equator, to 360 degrees. The longitude of any place, together with the latitude (q. v.), is requisite for the determination of the true situation of the place upon the earth. From the form of our earth, it follows that the degrees of longitude must always decrease towards the poles. The degrees of latitude, on the contrary, are all taken as equal to each other, and each amounts to 60 geographical miles. The measure of a degree of longitude upon any parallel of latitude is found by multiplying the length of a degree on the equator by the co-sine (taking radius equal to 1) of the latitude of the parallel. The longitude shows the difference of time between any place and the first meridian. The sun performing his apparent revolution in 24 hours, a place which lies 15 degrees farther to the west than another, will have noon one hour later. Places whose difference of longitude amounts to 180° have opposite seasons of the day, since in the one place it is mid-day, and in the other, at the distance of 180°, it is midnight at the same moment. The difference in longitude of any two places may be also determined by observations of the time of certain celestial phenomena, taken at both places, such as eclipses of the moon, occultations of fixed stars, and, in particular, the eclipses of Jupiter's satellites; and, *vice versa*, we can, from the difference of longitude of two places, accurately ascertain the difference of their time. 15° upon the parallel circle corresponding to one hour, 1° gives 4′ of time, 15′ give 1′ of time, 15″ give 1″ of time, &c. The difference of longitude between Boston and London may serve as an example. This difference is 71°, 4′, 9″; consequently, noon at London is 4 hours 44 minutes and 6 seconds earlier than at Boston. The determination of longitude at sea, or of the situation of a ship at any moment, is highly difficult and important. The English parliament, in 1714, offered a reward of £20,000 for an accurate method of finding the longitude at sea, within one half of a degree; but this act was repealed July 15, 1828. A watch which should preserve a uniform motion, was the most suitable means that could be afforded to the navigator, who might, from the difference of the time of noon on board the ship, and the time by the watch, immediately determine the difference between the longitude of the place for which the watch was regulated, and that wherein the ship then was. Harrison (q. v.) was the first who invented a chronometer of the requisite accuracy. Upon the first voyage, it deviated only two minutes in four months. Other artists followed, namely, Kendall, Mudge, Berthoud, Le Roy, &c.; and Arnold and Emery have lately prepared such accurate chronometers, that they have been used for the determination of longitude upon land, as well as at sea, with great success. Nevertheless, astronomical observations furnish the most exact methods of determining longitude. As eclipses and occultations are comparatively rare, and are somewhat difficult of calculation, the distances of the moon from the sun or some of the fixed stars have been adopted for the calculation of longitude, because these can be measured almost every night, and an accurate knowledge of the moon's orbit is the only thing requisite thereto.—*Longitude* in the heavens, as that of a star, &c., is an arc of the ecliptic comprehended between the first of Aries, and a circle perpendicular to the ecliptic, passing through the place of the star. The computation is made according to the signs of the ecliptic. The longitude of a star is found by means of its right ascension and declination. It changes on account of the precession of the equinoxes. (See *Equinox*, and *Precession.*)

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* The most recent chart of Long Island Sound is that published by the Messrs. Blunts (New York, 1830.)

Longus, author of a Greek pastoral romance, the subject of which is the loves of Daphnis and Chloe, probably lived in the time of Theodosius the Great. Nothing is known of the circumstances of his life, nor is he mentioned by any of the ancients. His work is interesting by its poetical spirit, graphic description and style. The earlier editions, of which Villoison's is the best, do not contain the work in so complete a state as that of Courier (Paris, 1810). He supplied, from a Florentine manuscript, an important chasm, but, having taken a copy of it, was careless or mean enough to render the page of the manuscript which contained that narration, illegible by an enormous ink-spot. This spot, the librarian, Del Furia, justly indignant, has laid before the eyes of the public in an engraving, with an account of the whole affair.

Longwood. (See *St. Helena.*)

Loo-Choo, or **Lieou-Kieou**, or **Lew-Chew**; a group of islands in the Pacific ocean to the south of Japan and east of China, to which they are tributary. Lat. 26° to 27° 40′ N.; lon. 127° 10′ to 129° E. But little was known to us of these islands until they were visited by Maxwell and Hall, on their return from the embassy to China. (See Hall's *Voyage to Corea and Loo-Choo.*) They are represented as having a mild climate and an excellent soil, abounding in fruits and vegetables. The voyagers who have touched have been allowed to land only under the most jealous precautions, and have never been permitted to enter the country. In other respects, they have been kindly treated and supplied with provisions, for which the islanders have uniformly refused to receive pay. Capt. Hall paints the islands as a new Arcadia, in which the use of arms, money and punishments is unknown. It is manifest that little reliance is to be placed on the accounts of travellers, who were ignorant of the language of the Loo-Chooans, and whose intercourse with them was evidently subject to all the restraints of a most vigilant and despotic police. In fact, the statements of captain Hall on several points have been contradicted by the last voyager who has visited these islands (Beechey, *Voyage in the Pacific*, London, 1831), who asserts that the Loo-Chooans have arms and money, and inflict the most severe and cruel punishments. As for the supplies, they appear to have been furnished by authority, and not by individuals, and the refusal to receive compensation is easily accounted for, on the ground that the government which shows such an aversion to strangers, is unwilling to suffer any traffic between them and its subjects. They were for some time subject to Japan, but, in 1372, were conquered by China.

Look-out; a cape on the coast of North Carolina, in lat. 34° 34′ N.: N. E. of cape Fear, and S. W. of cape Hatteras.

Loon (*colymbus*); large aquatic birds, common to both Europe and America. They seldom visit Britain, but are met with in the north of Europe and Asia. In America, they are most numerous about Hudson's bay, but are also found farther south. In Pennsylvania, they are migratory, making their appearance in the autumn. They are commonly seen in pairs, and procure their food, which is fish, by diving and continuing under water for a length of time. They are very wary, and are seldom killed, eluding their pursuers by their great dexterity in plunging beneath the water. They are very restless before a storm, always uttering loud cries on the approach of a tempest. They are not eaten, the flesh being rank and fishy. Some of the tribes in the Russian empire tan the skin which covers the breast of this fowl, and form dresses, &c, of it, which are very warm, and imbibe no moisture. The Greenlanders also make the same use of them. The loon measures two feet ten inches from the tip of the bill to the end of the tail, and four feet six inches in breadth: the bill is strong, of a glossy black, and four inches and three quarters long, to the corner of the mouth. The head and half of the length of the neck are of a deep black, with a green gloss, and purple reflections; this is succeeded by a band consisting of interrupted white and black lateral stripes, which encompasses the neck, and tapers to a point on its fore part, without joining; below this is a broad band of dark glossy green and violet, which is blended behind with the plumage of the back; the whole of the upper parts are of a deep black, slightly glossed with green, and thickly spotted with white, in regular transverse or semicircular rows, two spots on the end of each feather; the lower parts are pure white, with a slight dusky line across the vent. The outside of the legs and feet is black, the inside lead color. The leg is four inches in length; both legs and feet are marked with five-sided polygons; weight about eight to ten pounds. The female is somewhat smaller than the male, and differs in her colors. The young do not attain their perfect plumage until the second or third year. It should be mentioned, however, that Temminck and the prince of Musignano state that the two sexes are alike in plumage: our sportsmen who reside on the coast where these birds are plenty, insist, on the contrary, that the adults of both sexes may always be distinguished by their plumage. The female lays two large brownish eggs, and generally builds at the edge of small islands or the margins of lakes and ponds. In swimming and diving, the legs only are used, and not the wings, as in the guillemot and auk tribes; and, from their being situated far behind, and their slight deviation from the line of the body, the bird is enabled to propel itself through the water with great velocity.

Loos, Daniel Frederic, a distinguished die-sinker, was born at Altenburg, in Saxony, in 1735. Stieler, the royal die-cutter, took him as an apprentice, but kept him back from jealousy. Loos, however, finally went to Dresden, where he worked at the mint, but his merits were here also kept secret by his employer. After many vicissitudes, Loos was employed in the Prussian service at Magdeburg, but was unable to maintain his family, and lived for some time in poverty, in Berlin. His merit was at last acknowledged. In 1787, he became member of the academy of fine arts, and produced a great number of medals. Purity of style and drawing were not so much required in medals as at present in Germany, but his successors have hardly surpassed him in technical skill. Loos died in 1818. His son is one of the chief officers of the Berlin mint.

Lope de Vega (*Don Lope Felix de Vega Carpio; Frey*, as he is often called, signifies *friar*), a celebrated dramatic poet, was born at Madrid, Sept. 25, 1562. While a child, he displayed a lively taste for poetry, made verses before he knew how to write, and, as he himself avers, had composed several theatrical pieces, when scarcely 12 years of age. About this time, he ran away from school with a comrade, for the purpose of seeing the world, but was stopped in Astorga, and sent back, by the authorities of the place, to Madrid. Lope early lost his parents, but was enabled, by the assistance of Avila, bishop of Alcala, to complete his studies. He afterwards found a patron in the duke of Alva, at Madrid. Encouraged by this Mæcenas, whose secretary he became, he composed his *Arcadia*, a heroic pastoral in prose and verse, of which Montemayor had given an example in his Diana. The Arcadia is an idyl, in five acts, in which the shepherds, with their *Dulcineas*, speak the language of Amadis, and discuss questions of theology, grammar, rhetoric, arithmetic, geometry, music and poetry. Inscriptions are also introduced upon the pedestals of the statues of distinguished men in a saloon, in which a part of the action takes place. This work proved the various acquisitions of the author. Conceits and quibbles are frequent in this, as in Lope's other writings. In general, he is one of those writers who set a dangerous example of that false wit, a taste for which extended almost all over Europe. Marino particularly introduced it into Italy, and acknowledged, with lively expressions of admiration, that Lope had been his pattern. After the publication of his *Arcadia*, Lope married. He appears, however, to have cultivated the poetic art with increasing zeal. A nobleman of rank having made himself merry at Lope's expense, the poet revenged himself upon this critic, and exposed him to the laughter of the whole city. His opponent challenged him, and was dangerously wounded in the encounter, and Lope was obliged to flee to Valencia. After his return to Madrid, the loss of his wife rendered a residence in that place insupportable to him. In 1588, therefore, he served in the invincible armada, the fate of which is well known. During this expedition he wrote *La Hermosura de Angelica* (the Beauty of Angelica), a poem in 20 cantos, which continues the history of this princess from the time in which Ariosto left it. By this work he hoped to do honor to his country, in which, as he learned in Turpin, the succeeding adventures of the heroine occurred. In addition to the peril of rivalry with Ariosto, the difficulty of success was increased by the appearance of a poem upon the same subject, by Luis Borhono de Soto, under the title *Las Lagrymas de Angelica*, which passed for one of the best poems in the Spanish language, and was honorably mentioned in Don Quixote. In 1590, Lope returned to Madrid, and again entered the married state. In 1598, he obtained one of the poetical prizes, offered on the occasion of the canonization of St. Isidore. This prize poem he published with many other poems, under the name of *Tomè de Burguillos.* About this time, he also composed a great number of pieces for the theatre. His literary fame increased, and his domestic situation made this the happiest period of his life. But he lost his son, and soon after his wife, and had only a daughter left. He now sought consolation from religion, and became a priest and secretary of the inquisition. His devotion, however, did not interfere with his poetical studies, and he still endeavored to maintain the distinguished rank which he had taken upon the Spanish Parnassus, and to repel the attacks of his foes and his rivals, among whom Luis de Gongora y Argote was the most distinguished. Lope, who had been attacked in his satires, and who was indignant at the corruption of taste produced by him, allowed himself to ridicule his obscure and affected style, and that of his pupils, although, in his poem *Laurel de Apollo*, he acknowledges the talents of Gongora. But Gongora's corrupt taste infected even his opponents, and it must be confessed that Lope's last works are not entirely exempt from it. Another yet more distinguished assailant was Cervantes, who publicly advised him, in a sonnet, to leave the epic poem, upon which he was then engaged—*Jerusalem conquistada*—unfinished. Lope parodied this sonnet, and published his poem, the weakest of his performances. He accompanied it with many remarks, which are all found in the last edition of 1777. Cervantes acknowledged his merits, however, in the following verses:

> "*Poeta insigne, á cuyo verso o prosa*
> *Ninguno le avantaje ni aun le hega.*"

(A distinguished poet, whom no one, in verse or prose, surpasses or equals.) Cervantes died soon after (1616), in poverty, in the very city in which his rival lived in splendor and luxury, and in the possession of the public admiration. How differently has posterity judged of these two poets! For 200 years, the fame of Cervantes has been increasing, while Lope is neglected in his own country. About the time of Cervantes' death, the enthusiasm of the Spaniards for Lope approached to idolatry, and he himself was not wise enough to reject it. The number of his poetical productions is extraordinary. Scarcely a year passed in which he did not print a poem, and, in general, scarcely a month, nay, scarcely a week, in which he did not produce a piece for the theatre. A pastoral, in prose and verse, in which he celebrates the birth of Christ, established his supremacy in this branch; and many verses and hymns on sacred subjects bore testimony to his zeal for the new calling to which he had devoted himself. Philip IV, who greatly favored the Spanish theatre, when he ascended the throne, in 1621, found Lope in possession of the stage, and of an unlimited authority over poets, actors, and the public. He immediately loaded him with new marks of honor and favor. At this time Lope published *Los Triumphos de la Fé*; *Las Fortunas de Diana*, novels in prose, imitations of those of Cervantes; *Circe*, an epic poem, and *Philomela*, an allegory, in which, under the character of the nightingale, he seeks to revenge himself upon certain critics, whom he represents under that of the thrush. His celebrity increased so much that, suspicious with respect to the enthusiasm which had been shown for him, he printed the work *Soliloquios a Dios*, under the assumed name, N. P. Gabriel de Padecopeo (an anagram of Lope de Vega de Carpio), which likewise obtained great applause. He afterwards published a poem on the subject of Mary Stuart, viz. *Corona tragica* (the Tragic Crown), and dedicated it to pope Urban VIII, who had also commemorated the death of this queen. The pope wrote an answer to the poet with his own hand, and conferred on him the title of doctor of theology; he also sent him the cross of the order of Malta—marks of honor which, at the same time, rewarded his zeal for strict Catholicism, on which account he was also made a familiar of the inquisition. All this contributed to support the enthusiasm of the Spaniards for this "wonder of literature." The people for whom he wrote, without regard to criticism (for he says in his strange poem, *Arte de hazer Comedias*, that the people pay for the comedies, and, consequently, he who serves them should consult their pleasure), ran after him whenever he made his appearance in the street, to gaze upon this prodigy of nature (*monstruo de naturaleza*), as Cervantes called him. The directors of the theatre paid him so liberally, that at one time he is said to have possessed property to the amount of more than 100,000 ducats; but he was himself so generous and charitable, that he left but little. The spiritual college in Madrid, into which he had been admitted, chose him president (*capellan mayor*). In common conversation, any thing perfect in its kind, was called *Lopean*. Until 1635, he continued without interruption to produce poems and plays. At this period, however, he occupied himself with religious thoughts, and devoted himself strictly to monastic practices, and died August 26 of the same year. The princely splendor of his funeral, of which the duke of Susa, the most distinguished of his patrons, and the executor of his will, had the direction, the great number as well as the tone of the panegyrics, which were composed for this occasion, the emulation of foreign and native poets to bewail his death, and to celebrate his fame, presented an example altogether unique in the history of literature. The splendid exequies continued for three days, and ceremonies in honor of the Spanish Phœnix were performed upon the Spanish stages with great solemnity. The number of Lope's compositions is astonishing. It is said that he printed more than 21,300,000 lines, and that 800 of his pieces have appeared upon the stage. In one of his last works, he affirmed that the printed portion of them was less than those which were ready for the press. The Castilian language is, indeed, very rich, the Spanish verses are often very short, and the laws of metre and rhythm are not rigid. We may, however, doubt the pretended number of Lope's works, or we must admit, that, if he began to compose when 13 years of age, he must have written about 900 verses daily, which, if we consider his employments, and the interruptions to which, as a soldier, a secretary, the father of a family, and a priest, he must have been subject, appears inconceivable. What we possess of his works amounts to only about a fourth of this quantity. This, however, is sufficient to excite astonishment at his fertility. He himself informs us that he had more than a hundred times composed a piece and brought it on the stage within 24 hours. Perez de Montalvan asserts that Lope composed as rapidly in poetry as in prose, and that he made verses faster than his amanuensis could write them. He estimates Lope's plays at 1800, and his sacramental pieces (*Autos sacramentalos*) at 400. Of his writings, his dramatic works are the most celebrated. The plots of those that approach nearest to the character of tragedy, are usually so extensive, that other poets would have made, at least, four pieces of them. Such, for instance, is the exuberance found in *La Fuerza lastimosa*, which obtained the distinction of being represented in the seraglio at Constantinople. In fertility of dramatic invention, and facility of language, both in prose and verse, Lope stands alone. The execution and the connexion of his pieces are often slight and loose. He is also accused of making too frequent and uniform a use of duels and disguises (which fault, however, his successors committed still more frequently), and of freedom in his delineations of manners. Some (lord Holland, for instance) have attributed to him also the introduction of the character termed *gracioso*, upon the Spanish stage. In those irregular pieces, which Lope composed for the popular taste, we find such bombast of language and thought, that we are often tempted to conclude that he intended to make sport of his subject and his hearers. The merit of the elaborate parts of his tragedies consists particularly in the rich exuberance of his figures, and, according to the Spanish critics, the purity of his language. In judging of his boldness in treating religious affairs, we must take into consideration the character of the nation, and the nature of the Spanish stage. Many foreign dramatic writers, we may add, have imitated Lope, and are indebted to him for their best pieces and touches. Schlegel, in his lectures on the drama (*Vorlesungen über dramatische Kunst*), says of Lope—"Without doubt, this writer, sometimes too much extolled, sometimes too much undervalued, appears in the most favorable light in his plays; the theatre was the best school for the correction of his three capital faults, viz. defective connexion, prolixity, and a useless display of learning." In some of his pieces, especially the historical, which were founded upon old romances and traditions, a certain rudeness of manner predominates, which is by no means destitute of character, and seems manifestly to have been chosen for the subjects. Others, which delineate the manners of the time, display a cultivated tone. They all contain much humor and interesting situations, and probably there are few which, with some alterations, would not be well received, even at the present day. Their general faults are the same—carelessness of plot and negligent execution. They are also deficient in depth, and in those fine qualities which constitute the mysteries of the art. A *Colleccion de las Obras sueltas assi en Prosa como en Verso de D. Lope*, &c., appeared at Madrid, 1776, seq. (21 vols., 4to.). This does not contain his plays, however, which were published at an earlier date, in 25 vols., 4to. Concerning his life (of which his poem *Dorothea* gives, perhaps, the most valuable information) and writings, consult the work of lord Holland—Some Account of the Life and Writings of Lope Felix de Vega Carpio (London, 1817, 2 vols., 2d edition).

Lord; of uncertain etymology; a title of honor or dignity, used in different senses. In the feudal times, lord (*seigneur*) was the grantor or proprietor of the land, who retained the dominion or ultimate property of the feud or fee, the use only being granted to the tenant. A person who has the fee of a manor, and consequently the homage of his tenants, is called the *lord of the manor*. In these cases, the lordship or barony was connected with the seigneurial rights of jurisdiction. The superior lord is styled *lord paramount*, and if his tenants again grant a portion of land to other persons, they being tenants in reference to the lord paramount, and lords in reference to their own tenants, are called *mesne* or *mean*, i. e. *middle lords*. *Lord* is also a mere title of dignity, attached to certain official stations, which are sometimes hereditary, but sometimes only official or personal. All who are noble by birth or creation, that is, the peers of England, are called *lords;* the five orders of nobility constitute the lords temporal, in contradistinction from the prelates of the church, or lords spiritual, both of whom sit together in the house of lords. (See *Peers*.) It is sometimes only an official title, as *lord advocate*, *lord mayor*, &c. It is also applied, but only by courtesy, to the sons of dukes and marquises, and to the eldest sons of earls.—In Scripture, the word Lord, when printed in capitals, in the Old Testament, is a translation of the Hebrew *Adonai*, which the Jews were accustomed to substitute in reading, and even in writing, for the ineffable name *Jehovah* (q. v.). In the New Testament, it is applied to Jesus Christ, the term, in the original Greek, being *κυριος* (owner, master.)

Lords, House of. (See *Parliament*, in the article *Great Britain*.)

Lord's Supper; a ceremony among Christians, by which they commemorate the death of the founder of their religion, and make, at the same time, a profession of their faith. Jesus Christ instituted the rite when he took his last meal with his disciples. The bread, which he broke after the Oriental manner, was a fitting symbol of his body, which was soon to be broken; and the red wine (for, probably, Christ used this kind of wine, which is the most common in Palestine) was a significant symbol of his blood. In all the churches founded by the apostles, this usage was introduced. In the first and second century, this rite was celebrated in connexion with the *agape* (q. v.) or *love-feast*. After the third century, when the congregations became more numerous, the *agapes* ceased, and the Lord's supper was from thence celebrated on the occasion of every divine service in the churches, in such a way that all present could partake, with the exception of catechumens (i. e. Christians not yet baptized), and of unbelievers. These were obliged to withdraw when the celebration of the Lord's supper commenced, because communion was considered as a mysterious act, which was to be withheld from profane eyes. Christians soon began to ascribe supernatural power to the rite, and to take the consecrated bread and wine for more than bread and wine, and to maintain that the body and the blood of our Savior were united with them. From this originated the doctrine of transubstantiation, which was started by Parrhasius Radbertus, in the ninth century. Though this doctrine was at first opposed (see *Berengarius*), yet it was soon generally received, and, in 1215, solemnly confirmed by pope Innocent III, in the fourth Lateran council. From the new doctrine sprang the adoration of the host (in which God was present, according to the new belief), as well as the custom of refusing the cup in the communion to the laity, because it was supposed, that, where the body of Christ was, his blood must be too (*Concomitance*), whence the use of the wine was not necessary for the reception of the communion. This refusal was, also, partly owing to a desire of avoiding every occasion whereby the blood of Christ might be incautiously spilled, and become profaned; and partly to the efforts of the clergy to establish a distinction in their own favor. Even before the origin of the doctrine of transubstantiation, the Lord's supper had begun to be represented as a sacrifice. From this sprang the private mass. (See *Mass*.) After the notion of purgatory had become prevalent, this doctrine was connected with the above-mentioned conception of the communion as a sacrifice, and now masses were said chiefly for the purpose of delivering the souls of the deceased from purgatory. As early as the seventh century, private masses were celebrated in various places; after the ninth century, they were in use every where. Thus the Lord's supper had become, in the course of time, something quite different from the design of its founder. This had been contended previous to the reformation, by some parties dissatisfied with the ruling church, especially by the Hussites (see *Hussites*, in article *Huss*), in the fifteenth century, to whom, indeed, the council of Bâle was obliged to allow the use of the cup in the communion. The reformers renewed the complaint, that the church had deviated, in the celebration of the Lord's supper, from the purpose of Christ, and the example of the apostolic age, and both the German and Swiss reformers agreed in rejecting the doctrine of transubstantiation and the mass, and maintaining, that the Lord's supper ought to be celebrated before the whole congregation, and with the administration of both bread and wine. In explaining the words by which the supper was instituted, Luther and Zuinglius differed, and their different opinions on this subject formed the principal subject of the unhappy dissension between the Lutheran and Calvinistic churches. Luther took the words, "This is my body," &c., in their literal sense, and thought that the body and blood of Jesus Christ were united, in a mysterious way, with the bread and the wine, so that the communicant receives, with and under (*cum et sub*) the bread and wine, the real body and real blood of the Redeemer. Zuinglius, on the other side, understood the words in a figurative sense, and supposed that Jesus Christ meant to say, "The bread and the wine represent my body and my blood," and maintained, therefore, that the bread and wine were mere signs of the body and the blood of Christ. From this difference of opinion arose a violent dispute between Luther and Zuinglius, which, in later times, has been continued between the Lutheran and Calvinistic divines. The opinion advanced by Calvin, by which a spiritual presence of the body and blood of Christ is supposed in the communion, though it came nearer to the Lutheran doctrine than that of Zuinglius did, yet was essentially different, and, therefore, also met with a strong opposition from the strict adherents of Luther. Melanchthon inclined to the Calvinistic notion, and so did many other Lutheran divines, who were called by the opposite party *Philippists* and *Crypto-Calvinists*. The *formula concordiæ*, or articles of religious peace, suppressed the Crypto-Calvinists in the greatest part of the Lutheran church, and established the idea of Luther. In recent times, many Lutheran divines have inclined to the Calvinistic doctrine. The Greek church has not adopted the doctrine of transubstantiation in its whole extent; yet her doctrine comes nearer to this dogma than to that of the reformed church. The Oriental Christians differ also from the Western, in using leavened bread in the Lord's supper, and in administering it to children. (See *Greek Church.*)

[The doctrine of the Lord's supper has given rise to such long and bitter contention between Catholics and Protestants, that the following remarks, written by a Catholic, and giving the Catholic views on this subject, may not be uninteresting to our readers.] The Catholic doctrine of communion (says the writer) cannot be understood without a clear insight into the fundamental views of the Catholic church on all sacred things. He, to whom Christianity is not an external revelation of the Deity, to whom Jesus is not the incarnate God, and his doctrine not divine truth higher than all human conceptions, who regards not the church as a divine institution, and her traditions as indisputably true, cannot enter into the Catholic views on the communion. It must be particularly considered, that Catholic Christianity is of a truly mystic nature. By *mysticism* we mean not the capricious imaginations of each individual, but the universal mystical belief of the church. Of these mysteries the sacrament of communion is the highest, and is the central point of all the institutions of the Catholic church. In all religions, we find the idea of a sacrifice, which man offers to the Deity, by which he acknowledges a relation between himself and the Deity, and endeavors to represent the devout spirit of religion by an act of external worship. The purer is this idea of a sacrifice, the purer is the religion. It was reserved for Christianity to give it its highest reality and greatest purity. In the prophecies relating to the Messiah, it is said, that he shall be a priest after the order of Melchisedek (*Psalm* cx. 4); but this Melchisedek was a priest of the Most High, who offered bread and wine. (*Gen.* xiv.) How then was this prophecy fulfilled? Malachi predicted that the sacrifices of the ancient law would be abolished, and supplied by a pure meat-offering. (*Malachi* i, 11.) The incarnate God walked in the flesh among mortals, teaching and working miracles. After having performed the miracle of multiplying the loaves, he delivered a part of his mysteries (*John* vi, 48—56; 1 *Corinth.* xix, 16; *Luke* xxii. 19, 20; *Mark* xiv, 22—29; *Math.* xxvi. 26—28.) It is easily perceived that this rite must have been coeval with the foundation of his religion, and that the apostles every where introduced it and made known its signification. But what the apostles have introduced and preached we learn only by tradition. This tradition, however, tells us that the ordinance of Christ was meant literally. The Lord (proceeds the writer) remained in his church: in the congregations of the Christians, the body and the blood of the Savior were offered and tasted in the shape of bread and wine. This was the belief of the church from the beginning; and it cannot be shown that it commenced at any particular time, or supplanted another doctrine. The clearest proof of this is, that a similar doctrine, even if it be not the same doctrine of transubstantiation, is to be found in all the churches, which long since separated from the Catholic. This rite is in remembrance of the death and the resurrection of Jesus. But how (says the writer) can we sin against the body and the blood of Jesus? How can we take it at all unworthily, if the whole ceremony is a mere act of commemoration? To what purpose would be the admonition, "This do in remembrance of me," if there was no meaning attached to it but that of a participation in the fruits of Jesus' death by an act of commemoration? The memory of Jesus is essentially connected with all the benefits of his religion. Further, as soon as we admit of a real presence of Jesus in the eucharist, we must be ready to concede, also, that the bread and wine cease to exist in reality, though they remain still in appearance. That which really exists, is the sacramentally (not visibly) present body and blood of Christ. By a miracle of the Omnipotent, a change is effected, and this we call *transubstantiation*. It has been proved already, by Leibnitz, that there is no philosophical contradiction in this, and we find it the principle of a whole philosophical school, the sceptics, to dispute the real existence of appearances. Even the oldest Christian fathers, not only in sermons, but in passages explanatory of their doctrines, and destined for the instruction of the catechumens, expressed themselves in such a way as to show us that the first Christians were not only convinced of Christ's being present through our belief, but also that the bread or wine no longer existed. Justin Martyr, endeavoring to give the emperor a notion of the religion of the Christians, after describing the ceremony of consecration, says, "We eat this not as common bread, and drink this not as common wine; but as Jesus Christ, after having been made man by the word of God, had flesh and blood, so we believe also, that the food consecrated by his words, has become the flesh and blood of the man Jesus." (*Acts* 1.) We know also, that the Christians were accused, by the pagans, of eating, in their secret assemblies, the flesh of an infant—a notion which certainly took its rise from their doctrine of the Lord's supper, of which the former might have heard some obscure account. The Christians, in general (continues the writer), kept this doctrine very secret (*disciplina arcani*). If they believed that they received Christ only through faith, it is not easy to see why they made such a mystery of it. But this they did, and instructed their catechumens in this doctrine but a short time before their baptism. The dogma of transubstantiation is as old as the communion itself, and was by no means first set up by Parrhasius Radbertus, in the ninth century, as is commonly asserted by the Protestants. There is no reason why that real presence should be limited to the time when the Christian receives the eucharist; for Christ distinctly says, "This is my body," and tenders it, on that account, to his disciples. And how could it be decided at what moment this presence commences, and when it ceases? The first Christians knew nothing about this limitation. They regarded the consecrated host with feelings of adoration; they partook of it with the utmost awe, and carried it with them in times of persecution, to encourage themselves by the enjoyment of it. Origen, a writer of the third century, says, "You, who are allowed to partake in the holy mysteries, you know how to keep the body of the Lord you receive, with all caution and reverence (the Christians received it formerly with their hands), lest any part of the hallowed gift fall to the ground; you believe justly that you bring guilt upon yourselves when, by negligence, you drop any part of it." Equally strong terms are to be found in Cyril's instructions to the new converts, as well as in the liturgy of all the Oriental and Western churches, the testimony of which is of the greater importance, as it is not the testimony of a few single scholars, but the public profession of entire churches. As from the first times, the presbyter of the congregation performed the consecration, the peculiar view of the Catholic church, which considers the spiritual guide of a congregation as a sacrificing priest, is explained. The mass is nothing but this sacrifice, and, so far, as old in its essential character as the Lord's supper, though it first received its external additions and form under Gregory the Great. The Lord's supper is a sacrament, which, by an external symbol, sanctifies the internal man. The Catholic view of communion pervades the whole Catholic religious and ecclesiastical system. This creed of the whole Christian church, the Greek not excepted, as it is represented here, remained uncontroverted until the eleventh century, when the controversy between the Greek and the Latin churches broke out, respecting the bread to be used in the communion—whether it ought to be leavened or unleavened. Respecting the doctrine of the supper, there arose no dispute, till the beginning of the thirteenth century, when the priest Berengarius of Tours denied the doctrine of transubstantiation, but not that of the substantial presence of Christ. The whole church was surprised at this innovation. This gave occasion, in the fourth Lateran council, to a solemn proclamation of the old creed of the church on transubstantiation. This creed continued in full authority, and even Huss did not impeach it; nay, Huss and his adherents were filled with reverence towards the sacrament, and claimed even the cup. It had become customary in latter times, from fear of spilling some part of the blood, to give only the body to the laity, since in the body the blood was contained (doctrine of concomitance). The Hussites, however, believed that the cup was a constituent part of the sacrament, without which the sacrament would not be complete. The church condemned this opinion as a heresy, in the council of Constance, in 1415. By the reformation of the sixteenth century, the whole Catholic system was attacked, as the reformers, rejecting the traditions of the church, took the Bible alone for their guide in matters of belief, and departed, at the same time, from the Catholic theory of communion. If they had left the Catholic doctrine on communion, the priesthood and mass would necessarily have remained too. By what means could the priests of the new sect obtain their consecration? It was therefore necessary to establish a new theory of communion; or, rather, it was the natural consequence, since the new church, founded on reason, by which the scripture was to be searched, must needs lose a sense of the Catholic mysteries. In the council of Trent, session 13, are pronounced the following canons, which represent the creed of the church:—1. If any one denies that there is contained in the most holy sacrament of the altar, truly, really and substantially, the body and the blood, together with the soul and divinity of our Lord Jesus Christ, and, consequently, the entire Christ,—if such a one say, that he is contained therein only as in a symbol, *vel figura, vel virtute, anathema sit* (let him be cursed). 2. If any one says, that there remains in the most holy sacrament of the altar, the substance of the bread and wine, together with the life and the blood of our Lord Jesus Christ, and if he denies that wonderful and miraculous transformation of the whole substance of the bread into the body, and the whole substance of the wine into the blood, whilst there remains only the shape (*species*) of the bread and the wine, which transformation is termed, by the Catholic church, *transubstantiation—anathema sit.* 3. If there be any one who denies that there is contained in the venerable sacrament of the altar, under both sorts, and after division has been performed under the single parts of both sorts, the whole Christ—*anathema sit.* 4. If any one says, that, after consecration has been performed, the body and the blood of Christ is not in the miraculous sacrament of the altar, but that this is only during the tasting, neither *before* nor *afterwards*, and that there is not in the consecrated host or the particles, preserved or remaining after the celebration of the Lord's supper, the true body of the Lord—*anathema sit.* 5. If any one says, either that remission of sins is the principal effect of the sacrament of the altar, or that no other results spring from it—*anathema sit.* 6. If any one says, that the only-begotten Son of God is not to be adored by external worship, in the holy sacrament of the altar, and to be revered with particular solemnity, nor to be solemnly carried about in processions, after the praiseworthy and universal usage of the church, nor to be presented publicly to the people, and that those who adore him are idolaters—*anathema sit.* 7. If any one says, it is not permitted to keep the holy eucharist in the pix, but that it must be distributed immediately after the consecration to the by-standers, or that it is not permitted to bear it reverentially to the sick—*anathema sit.* 8. If any one says, that the Christ offered in the eucharist is tasted only spiritually, and not sacramentally and really—*anathema sit.* 9. If any one denies that all Christian believers of either sex, as soon as they are arrived at years of discretion, are bound, after the command of the holy Catholic church, to communicate, at least, at Easter every year—*anathema sit.* 10. If any one says, that it is not permitted to the officiating priest to administer the sacrament to himself—*anathema sit.* 11. If any one says, that faith alone is a sufficient preparation for the enjoyment of the holy sacrament—*anathema sit.* The Catholics have still the *præsens numen*, as a pledge that the Lord remains with their church. (See *Corpus Christi.*)

Lorenzo de Medici. (See *Medici.*)

Loretto; a small town in the States of the Church, about three miles from the sea, in the Marc of Ancona, with a bishop, who is also bishop of Recanati, and 5000 inhabitants, who are principally supported by the resort of pilgrims. Pilgrimages are made to the *casa santa*—the holy house in the cathedral of Loretto, which is supposed to have been the house of the virgin Mary, and which was carried by the angels (1291) from Galilee to Dalmatia, and thence, in 1294, to Italy, near Recanati, and, finally (1295), to the spot where it now remains. This holy house, which is in the centre of the church, is covered, externally, with marble, and is built of ebony and brick. It is 30 feet long, 15 wide, and 18 feet high, and richly ornamented. It has also been imitated at other places (for instance, at Prague). Loretto formerly contained great treasures, collected from the pilgrims. The income of this house once amounted to 30,000 *scudi*, besides the presents received annually. The pilgrims were estimated at 100,000 yearly. Amongst other curiosities, a window is shown in the holy house, through which the angel Gabriel appeared to Mary, when he announced the birth of the Savior. Raphael's painting of the virgin throwing a veil over the infant is beautiful. The treasures were, in part, expended in paying the contributions imposed by the French (1798); the rest was taken possession of by them. They carried the image of the virgin to Paris, but it was restored with great pomp, December 9, 1802.

L'Orient; a fortified and regularly built seaport of France, department of the Morbihan, on the bay of Port Louis, at the influx of the small river Scorf. The harbor is large and secure, and of easy access. It has still some trade, particularly with the French colonies, and is a place of importance, on account of its magazines for the use of the royal navy. The principal manufacture is of salt. Population, 17,115; 340 miles W. by S. Paris; lat. 47° 45′ N.; lon. 6° 2′ W.

Lorme, Marion de. (See *Delorme.*)

Lorraine, Claude. (See *Claude Lorraine.*)

Lorraine (*Lotharingia*; in German, *Lothringen*), so called from Lothaire II, to whom this part of the country fell in the division of the empire between him and his brothers, Louis II and Charles (854), had previously belonged to the kingdom of Austrasia. It was divided into Lower and Upper Lorraine; the former including all the country between the Rhine, the Meuse and the Scheldt, to the sea; the latter the countries between the Rhine and the Moselle, to the Meuse. Lorraine, at a later period, was bounded by Alsace, Franche-Comté, Champagne, Luxemburg, the present Prussian province of the Lower Rhine, and the Bavarian circle of the Rhine, containing 10,150 square miles, and at present forming the French departments of the Meuse, the Vosges, the Moselle and the Meurthe, with a population of 1,500,000 inhabitants. Its forests and mountains, among which the principal is the Vosges, are adapted for the raising of cattle, and contain much game; they also yield copper, salt, iron, tin, and some silver. Salt springs and lakes, abounding with fish, are also to be found. The soil is, for the most part, poor, and not adapted for tillage. The vine is cultivated to a considerable extent. The French and German languages are spoken. The people are of German origin. Lorraine was for centuries a subject of dispute between France and Germany. It was, for a long time, a fief of the German empire. On the death of Charles the Bold, duke of Lorraine, in 1431, without male heirs, the country was inherited by his daughter Isabella. The two grandsons of her son-in-law Frederic—Antony and Claude—founded, in 1508, the principal and collateral Lorraine lines, the latter of which spread in France (the dukes De Guise, D'Aumale, D'Elbœuf, D'Harcourt, belonged to it). From that time forward (1540), France took a decided part in all disputes relating to Lorraine. Charles of Lorraine was driven out, during the 30 years' war, on account of his connexion with Austria. He was restored in 1659, under severe conditions, and, in 1662, he consented that Lorraine should go to France on his death, the house of Lorraine being recognised as princes of the blood. He was, however, again deposed, and died in the Austrian service. His brother's grandson Leopold was recognised as duke of Lorraine by the peace of Ryswick (1697). France finally succeeded in her intentions, when Stanislaus, father-in-law of Louis XV, and the dethroned king of Poland, by the peace of Vienna (November 8, 1738), received the duchies of Lorraine and Bar (with the exception of the county of Falkenstein), which, after his death (1766), were united with France. By the second peace of Paris (1815), a small part, with the fortress Saarlouis, was ceded to Germany, and now belongs to the Prussian province of the Lower Rhine. Besides the principal town, Nancy (q. v.), Lunéville (q. v.) has been distinguished by the peace of 1801. Charles Eugene, duke of Lorraine-Elbœuf, born September 25, 1751, at the commencement of the French revolution, commanded the regiment *royal Allemand*, under the title of prince Lambesc, and afterwards entered the Austrian service, and died at Vienna, November 21, 1825. He was the last of the younger line. The elder line now rules in Austria, Tuscany and Modena. (See Etienne's *Resumé de l'Histoire de Lorraine* (Paris, 1825). See also *Hapsburg*.)

Lory. This name has been given to some of the parrot tribe, from their frequently repeating the word. They have, however, no distinct characters of sufficient importance to separate them from the great genus *psittacus*. They are very active and gay, even in captivity. They are found, for the most part, in the Moluccas, and are held in great estimation in some parts of the East. The most prized is the scarlet lory, which was for a long time unknown in Europe, as the Dutch were at first wholly unsuccessful in transporting it thither; the birds generally died on the voyage. They are now, however, brought across the ocean without much difficulty, and are marked by their tenderness and attachment to their masters. The Javanese appear to have a great predilection for them, and raise them in great numbers. But the most valuable of these birds is the yellow-collared, which is of a deep red color, with a circle of yellow around its neck. It is principally found in New Guinea. It is very docile and familiar, and has great aptness in learning to speak; this, added to its beauty, and its extreme delicacy, as well as the difficulty of rearing it, renders it very highly esteemed. A single bird has been sold in London as high as 20 guineas.

Lot; a river of France, which rises in the department of Lozère, and joins the Garonne, near Aiguillon; length, 150 miles. It gives name to a department. (See *Department*.)

Lot; according to the Hebrew history, a nephew of Abraham, who, to avoid dissensions between his followers and those of Abraham, went east into the plain of Jordan, towards Sodom, while his uncle dwelt in Canaan. Having been taken captive by some marauding chiefs, Lot was delivered by Abraham from their hands. Having received two angels into his house in Sodom, an attack was made upon it by night, by the inhabitants, who were struck blind, and the impending destruction of the city was announced to Lot. He escaped from the devoted spot, with his family; but his wife, looking back at the scene of devastation, "became a pillar of salt," which Josephus, and Benjamin of Tudela, declare existed in their times, and, according to some late travellers, was to be seen not long ago. The text is, by some, understood merely to signify, that she was rendered a statue, that is, motionless, by being incrusted with salt. Lot afterwards became the father of Moab and Ammon, by his two daughters.

Lot. Man often finds it extremely difficult to choose between two measures, things, persons, &c. In such cases, he often allows himself to be determined by some outward impulse. This is, in part, the reason why men appeal to lot. The predominant motive, however, in very many cases, is a superstitious belief of the direct interference of the Divinity in determining the result. Hence we find the lot most frequently resorted to in ages and nations little advanced in civilization, and less guided by reason than by belief in supernatural influences; and hence, too, the religious ceremonies with which the appeal to lot is often accompanied in such a state of society. (See *Divination*.) It would be endless to enumerate the different modes of determination by lot, and the various cases in which men have resorted to this mode of resolving doubts. The Hebrews used to draw lots before undertaking any important enterprise; also in criminal trials, to determine the question of guilt or innocence; and at the election of officers. Thus the apostle Matthew was chosen by lot. For this purpose, dice or small staves were generally taken. The holy lot was the *Urim* and *Thummim*. The Greeks made use of dice, with signs, letters or words inscribed. These were drawn out of a vessel, and interpreted by priests, or the dice were thrown as in games. Such dice were found in many temples, and one at Præneste was famous on that account. The northern nations—Russians, Germans, Swedes, &c.—all had their ways of prying into the future by lot. The Moravian Brethren have re-introduced the appeal to lot; they use it in the case of marriages and appointments, in their community, though it must be observed that they are not determined solely by it.

Lot has received, in America, the peculiar meaning of a portion of land, as a *house-lot.* In the first settlement of the country, a certain portion or share of land was *allotted* to each inhabitant of a town; this was called his *lot.* Hence, in a more general sense, the same word was applied to any piece of land. (See *Americanism.*)

Lot-and-Garonne; a department of France. (See *Department.*)

Loth; a German weight, the half of an ounce, or the 32d part of a pound avoirdupois. The lead used by navigators and mechanics is also called *Loth* in German.

Lotichius, Peter (called *Secundus*, to distinguish him from his uncle), born at Saalmünster, in Hanau, 1528, studied philosophy, the ancient languages, rhetoric and poetry under Melissus, Camerarius and Melanchthon; served in the forces of the Smalcaldic league; travelled in France and Italy, as the tutor to some rich young men; during this time, studied medicine at the most famous universities of both countries, and afterwards received a doctorate at Padua. He died very young, while professor of medicine at Heidelberg, 1560, as it is said, in consequence of a love potion, which was given him in Bologna. His Latin poetry, particularly his elegies, give him a place among the first modern Latin poets. There are editions of his *Poemata*, by P. Burmann (Amsterdam, 1754, 2 vols., 4to.), and by Kretschmar (Dresden, 1773).

Lotion, in medicine and pharmacy, is a wash for beautifying the skin, by clearing it of the deformities occasioned by a preternatural secretion. Almost all the lotions advertised for sale, contain much deleterious matter, and therefore ought never to be had recourse to.

Lottery (from *lot*); a scheme for the distribution of prizes by chance. Lotteries, like every other species of gambling, no doubt have a pernicious influence upon the character of those concerned in them. Though this influence is not so direct, and the immediate consequences are not so disastrous, as those of some other species of gambling, which call into exercise the violent passions, and stake the gambler's whole fortune upon a single chance or exertion of skill,—still, as this kind can be carried on secretly, and the temptations are thrown in the way of both sexes, all ages, and all descriptions of persons, it spreads more widely in a community, and may thus silently infect the sober, economical and industrious habits of a people more extensively and deeply, than those species of gambling which are attended with greater turbulence, and a train of other vices. Lotteries are of different kinds: I. Numerical lottery, or lotto (*lotto di Genova*); invented by the Genoese. At the elections of the counsellors, the names of the candidates were cast into a vase, and then into a wheel-of-fortune, when wagers were laid upon the event of the elections; the state finally undertook the superintendence of the bank. It is said that Benedetto Gentile, a counsellor, first introduced this lotto in 1620; and, because the name *Gentile*, by chance, had never been drawn, the popular belief prevailed, that the devil had carried him off, together with his name, to punish him for this unlucky invention. Numbers were afterwards substituted instead of the names of eligible noblemen, and hence the lotto assumed its present form. The numbers from 1 to 90 are used; from these, on the day of drawing, five numbers are always drawn. Out of the 90 numbers, each adventurer chooses for himself such and as many numbers as he likes, and specifies with what sum and upon what kind of chance he will back each selected number; whereupon he receives a printed ticket. In this lottery, there are four kinds of chances: 1. An *estrado*, so called, which requires only one number among the five that are drawn, and in which the successful adventurers received 14 times the stake. By this the lotto gains 16 per cent., because there are 17 blanks to one prize. 2. The wager, in which a man lays a wager, as it were, with the lotto, that one of the selected numbers will have the first, second, third, fourth or fifth place in the order of drawing. Should this event happen in the drawing, the bettor obtains 67 times the sum deposited. By this the lotto gains about 25 per cent. 3. The third is an *ambo*, in which, of the numbers drawn, there are two which the adventurer has pitched upon. He receives from the lotto 240 times the stake. In this case, the lotto gains 37 per cent., there being 399 blanks to one prize. 4. The last is a *terno*, by which the lotto gains 54 per cent., there being 11,347 blanks to one prize. It requires the adventurer to pitch upon three of the five numbers drawn, in which case he wins 4800 times the amount of the stake. The *quaternes* and *quinternes* are a later invention, and seldom applied to practice, because the lotto thereby gains 88 per cent. and more. The lotto was every where patronized by the multitude, with an interest increasing almost to madness. Wise governments soon saw into the destructive tendency of the lotto, and put an end to it, or prohibited adventuring in it under a severe penalty. Though the profit of the lotto banks was evident, yet fortune, by means of *ternes* and *quinternes*, brought many of them to ruin, or, at least, to its very verge, and hence, if numbers were backed too frequently, the conductors took the precaution to secure themselves, by declaring before the drawing, that such numbers were full, and they could receive no further stake upon them. Frauds, also, were practised, by means of violent riding and carrier-pigeons, on those lottos, the under offices of which, being placed at a distance, were accustomed to sell tickets, after the drawing in the principal offices had commenced. II. The proper lottery, called also *class lottery*, when divided into classes. Its origin is more ancient than that of the lotto. It has been referred to the Roman *Congiaria*. It is more probable that it originated from the transfer of merchandise by lot, of which method the Italian merchants made use even in the middle ages, and of which we also find traces in Germany; for as early as 1521, the council at Osnaburg is said to have established lotteries for merchandise. So also in France, under Francis I, similar lotteries for merchandise were permitted to the merchants, under the inspection of government, in consideration of certain duties. A money lottery was established at Florence, in 1530. In 1571, there appears to have been a public officer in Venice for the inspection of the lottery. From Italy, lotteries passed into France, under the name of *blanque* (from the Italian *bianca*, because most of the tickets were blanks, mere white paper, *carta bianca*). In 1582 and 1588, Louis de Gonzaga established such a *blanque* in Paris, for providing poor girls of his estates with dowries; and, in 1656, Lawrence Tonti (from whom the Tontines derive their name) sought to establish a large *blanque royale*, which was first accomplished in 1660. Since this time, there have been in France only *loteries royales*, the income of which is commonly applied to public buildings. This iniquitous traffic has been revived of late, in France, on a much larger and more destructive scale than it has attained in any other country. In 1810—and we have no reason to believe any decrease has since taken place—lotteries were drawn twice a week at Paris, and so often at Bordeaux, Brussels, Lyons and Strasburg, as to afford one every other day. 12,000,000 francs were yearly produced to government by this public gambling; and it has been estimated, that at Paris, the result has been more than 100 suicides annually. In England, the first lottery occurs in 1567—1568, a printed plan of which, as distributed, belongs to the antiquarian society in London. In 1612, a lottery was granted in behalf of the Virginia company, and, in 1680, one also in behalf of the undertaker of an aqueduct to furnish London with water. In 1709, the rage for private, and, in many instances, most fraudulent lotteries, was at its height in England, and shop-keepers, of all descriptions, disposed of their goods in this way, the price of tickets being as low as half a crown, a shilling, or even sixpence. Towards the close of the year, an existing act of parliament was put in force for their suppression, and another to the same purpose was passed in the 10th of queen Anne. The first parliamentary lottery was instituted in 1709, and, from that time till 1824, no session passed without a lottery bill. In October, 1826, the last English lottery was drawn. They are now abolished in England. As early as 1549, a lottery was drawn in Amsterdam, to procure money for the erection of the tower of a church, and, in 1595, one at Delft. In 1653, one was established at Hamburg, according to the Dutch method, and, in 1699, the first class lottery, at Nuremberg, and, in 1740, the first one was drawn in Berlin. Most of the late German lotteries are drawn in classes, in order to facilitate the sale of tickets. The great lottery of Hamburg goes upon the plan of one drawing. Latterly, lotteries for merchandise of all kinds, under the inspection of government, have been frequent in Germany. The managers of the principal lotteries sell only whole tickets. Brokers, however, divide them into halves, quarters, eighths, and even sixteenths, in order to facilitate their sale. In some places, they even let out tickets and parts of tickets, upon a particular number of drawings; in which case, they are not obliged to pay the prize which may fall to the ticket, unless it be drawn within the stipulated number of drawings. If the principal prizes remain for a long time in the lottery, so that the probability of being able to obtain them increases at each successive drawing, then a great profit is made in buying and selling tickets, and there are cases in which, in the last drawings, 10, and even 20 times the original price of the ticket has been demanded. Very lately, in the Austrian monarchy, in the kingdom of Bavaria, and in the duchy of Mecklenburg, estate lotteries have been got up, and manufactories, the estates of noblemen, and even whole lordships, have been disposed of by lottery, under public sanction, and, ordinarily, under the security of important mercantile houses, which undertook the disposal of the property, in order to settle the debts of the owners. A money lottery has ordinarily been combined with them. Latterly, lotteries have been combined with state loans. When the credit of the state is low, or when the rate of interest is high, efforts have been made to induce capitalists to put their money into the hands of the state, by means of a lottery, which gives them the expectation of a premium above the customary interest of the country. For example: If a government is uncertain of obtaining, or cannot obtain, money at 7 per cent., it may, perhaps, effect its object by offering 4 per cent. for a loan, and dividing the remaining 3 per cent. among the lenders by means of a lottery; for the hope of winning the great prizes in the lottery, in addition to the certainty of disposing of their capital at 4 per cent., has a stronger influence on many men than the offer of 7 per cent. interest. In this way, loans have been raised in Austria, Denmark, Baden and other states, and also in Prussia, in 1821. By this means, in Prussia, stocks to the amount of 30,000,000 were sold at their full nominal value, which, in the market, were current only at 70 per cent. In most, if not all of the U. States, lotteries, not specially authorized by the legislatures of the states, are prohibited, and the persons concerned in establishing them are subjected to a heavy penalty. This is the case, at least, in Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New York, Pennsylvania, Delaware, Maryland, Virginia, Kentucky, Tennessee, Georgia, Alabama, Ohio, Mississippi, and probably in most if not all the other States. The penalty is various: in Kentucky, it is a fine of $2000; in Tennessee, double the sum contained in the scheme. In Alabama, each person concerned is liable to a fine of $1000. In Louisiana, a man who sells tickets in a lottery not authorized by the legislature of that state, must pay $5000 for the license so to do, and if he sells tickets in several such lotteries at the same time, this amount must be paid for the license in each case. If he sells without a license, he is liable to a fine of $2000 for each ticket. In many of the states, the sale of tickets in lotteries established by law in other states is penal. In Massachusetts, any person concerned in the sale of tickets in a lottery not authorized by the commonwealth of that state, is liable to a fine of from $50 to 5000. In some of the states, lotteries have been very numerous. This is the case with several of the Southern States—Virginia, Maryland, and particularly Tennessee. They have also been numerous in New York. The object for which they have been granted has been generally the assistance of literary or benevolent institutions—colleges, academies, hospitals, asylums, or of public works—as roads, bridges, the improvement of the navigation of rivers, &c. Their pernicious effects have induced the legislatures of some of the U. States to decline granting them in any case.

Lotus. This name has been applied very vaguely to various species of plants, which have been celebrated in mythology and fabulous tradition. In the ancient Hindoo and Egyptian mythological representations of nature, the lotus (*nelumbium speciosum*, Lin.), an aquatic plant, was the emblem of the great generative and conceptive powers of the world. Several varieties are found in India under the names of *padma*, *tamara* and *camala*. When Vishnu, says the Hindoo fable, was about to create the world, the god, swimming in the ocean of milk, produced the lotus from his navel. It unfolded its flower, and displayed Brama, the first result of the creative energy. As an aquatic plant, the lotus was the attribute of Ganga, the goddess of the Ganges. In Egypt, it was consecrated to Isis and Osiris, and was an emblem of the creation of the world from water. It was also the symbol of the rise of the Nile and the return of the sun. It is found in bass-reliefs and paintings on the Egyptian temples, in all representations of sacrifices, religious ceremonies, &c., and in tombs and whatever is connected with death or another life. With both of these nations, it was regarded with religious veneration, and the precept of Pythagoras to abstain from beans, has been supposed to refer to the fruit of the lotus-plant. The *rhamnus lotus* is a shrub, the fruit of which is a small farinaceous berry, of a delicious taste, which is used by the natives of Africa to make a sweet cake. This shrub is found on the northern coast of Africa, and is probably the food of the *lotophagi* of antiquity. The fables of the ancients concerning them are well known. They were represented as a mild, hospitable race of men, in northern Africa, who lived on the lotus berry (hence their name λωτος and φαγειν, to eat), which had the power of making strangers who ate it, forget their native country.

Loudon, or **Laudon**, Gideon Ernest, baron of, one of the most celebrated generals of Austria in the eighteenth century, was born at Tootzen, in Livonia, in 1716, a descendant of an old Scottish family, a branch of which had emigrated thither in the fourteenth century. In 1731, he entered the Russian service, and rose to the rank of lieutenant, under Münnich, in the campaign against the Turks. In 1739, he was discharged, in consequence of the peace, and, intending to enter the Austrian service, went by the way of Berlin, where, by the advice of some of his former comrades, he attempted to obtain admission into the Prussian service. After being kept in suspense a long time, he became so poor, that he was obliged to support himself by copying. When the king finally allowed him to be presented, he turned from him, with the words *La physiognomie de cet homme ne me revient pas.* Loudon then proceeded to Vienna, and, in 1742, was made captain in the corps of Pandoors, under the partisan chief Trenk. In the battle of Saverne, he was wounded and taken prisoner, but was exchanged, and served against Frederic the Great, in the second Silesian war. Trenk imputed to Loudon the outrages and cruelties which he had himself committed, but the latter defended himself from the charge, and Trenk was sentenced to imprisonment in the fortress of Spielberg. After the peace, Loudon again lost his employment, and lived in great poverty. He was at length appointed major in a regiment stationed on the Turkish frontier, where he married, and embraced the Catholic religion. Five years afterwards, the seven years' war broke out, and Loudon's name was arbitrarily struck from the list of officers destined for service. This was done by his general, who commanded in Croatia, a man who hated talent; upon which he went to Vienna to complain, but found the authorities prejudiced against him, and was about to be sent back to the frontiers, when a friend succeeded in getting him appointed lieutenant-colonel of a corps of light-infantry. Loudon soon distinguished himself, and was appointed, under the prince of Hildburghausen, commander of the imperial forces which were united with the French under Soubise. Thus Loudon was obliged to witness the surprise of Gotha by the Prussian general Seidlitz, and the defeat at Rossbach. At this time, Frederic the Great sent him a flattering letter, with the commission of general, which his hussars had taken from an Austrian courier. In 1758, Loudon was made lieutenant field-marshal. He decided the victory of Cunersdorf (q. v.) in 1759, which threatened the destruction of the Prussian monarchy, and was appointed general of artillery, with the command of 30,000 men. In 1760, he gained the battle of Landshut, and covered the retreat of the army of Daun, after the battle of Liegnitz, in so masterly a manner, that Frederic exclaimed—"We must learn how to retreat from Loudon; he leaves the field like a conqueror." In 1761, without any previous investment, he took Schweidnitz, which was well provisioned and strongly fortified, by assault—an achievement for which he was on the point of being called to account before the council of war at Vienna. At the breaking out of the Bavarian war of succession, he was appointed commander-in-chief and field-marshal. After the conclusion of peace, he studied diligently during nine years. When the war with Turkey broke out, Joseph II thought, at first, that he could conduct the campaign without the assistance of Loudon, but soon found himself obliged to resort to the aged general, and victory returned to the Austrian banners. For the conquest of Belgrade, Loudon received the star of the order of Maria Theresa, which was composed of brilliants, and kept in the treasury of the imperial family, and which properly belonged only to the emperor as grand-master. After Loudon's death, the emperor Leopold gave his widow 50,000 florins for it. Loudon also received the unlimited command, and the title of *generalissimo*, which had not been conferred on any one since Eugene. He died July 14, 1790, at his head-quarters, at New Titschein, Moravia. Loudon continued to study, even in advanced age, and his military boldness seemed rather to increase with his years. In his private life, he was moderate, and extremely modest. The duke of Aremberg, in reply to the question of the empress, at a court party, Where is Loudon? answered—*Le* *voilà comme toujours derrière la porte, tout honteux d'avoir tant de mérite.*

Louis IX (St.), king of France, eldest son of Louis VIII and Blanche of Castile, born 1215, and baptized at Poissy (for which reason he sometimes wrote himself *Louis of Poissy*), came into possession of the government in 1226, and remained under the guardianship of his mother, who was at the same time regent of France. This is the first instance of the guardianship and regency being united in one person. The queen had, with the assistance of the pope, brought into subjection the independent barons, who, always at war with each other, disturbed the tranquillity of the kingdom. Louis successfully pursued the enterprise of his mother, summoned to his council the most able and virtuous men, put an end to the abuse of the ecclesiastical jurisdiction, composed the disturbances in Brittany, preserved a wise neutrality in the quarrels of Gregory IX and Frederic II, and was always intent upon promoting the happiness of his subjects. The wise management of his states enabled him to levy a powerful army against Henry III of England, with whom the great men of the kingdom had united themselves. Louis had the good fortune, in 1241, to defeat his adversary twice in the course of six days, and to force him to a disadvantageous peace. In the year 1244, when sick of a dangerous disorder, he made a vow to undertake a crusade to Palestine; and neither his mother nor wife was able, four years after, to prevent him from fulfilling this vow. He embarked with his wife, his brothers and the French chivalry, landed at Damietta, and, in 1249, conquered this city. He afterwards twice defeated the sultan of Egypt, to whom Palestine was subject. He himself performed prodigies of valor, particularly in the battle of Massura (1250). But famine and contagious disorders soon compelled him to retreat; his army was almost entirely destroyed by the Saracens, and himself and his followers carried into captivity. The sultan demanded for the ransom of the king and his lords the restoration of Damietta, and 1,000,000 gold Byzantines. But Louis answered—"A king of France cannot allow himself to be bartered for gold." He offered, however, to restore Damietta, as the ransom of his own person, and to pay the sum demanded for his followers. The sultan was so well pleased with this answer, that he contented himself with 800,000 Byzantines (about 100,000 marks of silver), and concluded a truce of 10 years. (In Napoleon's *Mémoires, Notes et Melanges* (vol. 1), is found a comparison between the campaign of Bonaparte in Egypt and that of St. Louis.) It was not till the year 1254, that Louis returned to France, and, in the interval, queen Blanche, who had ruled the kingdom in an exemplary manner, had died. Louis again turned his attention to the administration of the laws, which, until this time, had been left entirely to the caprice of the barons. The subjects could now appeal from the decision of their lords to four royal tribunals, and learned men were introduced into the parliaments, whose members had till now been composed of barons frequently so ignorant as to be unable to write. Louis likewise diminished the taxes, which had exhausted the wealth of the subjects. In 1269, he drew up a pragmatic sanction, which secured their rights to the chief or cathedral churches. He, nevertheless, repressed, when occasion required, the arrogant pretensions of the clergy. The high character which Louis IX bore among his contemporaries may be seen from this circumstance, that Henry III and his nobles, in 1268, selected him for the arbiter of their disputes. After he had united to his dominions several French provinces which had hitherto been under the dominion of England, he determined, in 1270, to undertake another crusade. He sailed to Africa, besieged Tunis, and took its citadel. But a contagious disorder broke out, to which he himself (Aug. 24, 1270), together with a great part of his army, fell a sacrifice. The instructions which he left in writing for his son, show the noble spirit which inspired this king; a spirit, which, if it had not been infected with the religious bigotry of the times, would have rendered his administration the greatest of blessings. In 1297, he was canonized by Boniface VIII. Louis XIII afterwards obtained from the pope that the festival of Saint Louis should be celebrated in all the churches.—See Arthur Beugnot's *Essay upon the Institutions of Saint Louis* (Paris, 1821), and count Segur's *Life of Louis IX* (Paris, 1824).

Louis XI, king of France; one of those personages who live at a period when old principles are giving way to new, and whose life, therefore, becomes an epoch. But Louis XI is a subject of great interest, not only as a representative of his age, but in his individual character. A person more ready for crime, if conducive to his ends, or a greater devotee, not for the purpose of deceiving others, but to quiet himself, is not to be found among monarchs. Châteaubriand's *Études Historiques* contains the opinions of many of the first writers of France, respecting this singular character. The following passage is from that work: *Louis XI vint faire l'essai de la monarchie absolue sur le cadavre palpitant de la féodalité. Ce prince tout à part, placé entre le moyen âge qui mourait et les tems modernes qui naissaient, tenait d'une main la vieille liberté noble sur l'échafaud, de l'autre jetait à l'eau dans un sac la jeune liberté bourgeoise; et pourtant celle-ci l'aimait, parce qu'en immolant l'aristocratie, il flattait la passion démocratique, l'égalité.* The life of such a sovereign can hardly be treated satisfactorily, within the limits to which we are confined, because it is not particular events, but the policy of his government, and the character of his measures, which render him remarkable. A full view of his life would be a history of France during the fifteenth century; we can give only the outlines. Louis XI was the son of Charles VII, and was born at Bourges, July 3, 1423. He was educated in a simple manner, under the eyes of his mother, Mary of Anjou, one of the most virtuous women of her time. At the age of five years, he married Margaret of Scotland, who died seven years afterwards. Active, bold and cunning, he was the reverse of his well-disposed but imbecile father, of whose ministers and mistress, Agnes Sorel, he soon showed himself a decided enemy. In 1440, he left the court, and put himself at the head of an insurrection at Niort, known under the name of *la Praguerie*. Charles defeated the rebels, executed some, but pardoned his son, whom he even trusted, in 1442 and 1443, with the command against the English and Swiss. Louis conducted himself with valor and prudence, and his father became entirely reconciled to him; but, having soon entered into new conspiracies, Louis was obliged to flee to Dauphiné, which Charles left at his disposal. Contrary to the will of his father, he married the daughter of the duke of Savoy, and entertained a treasonable correspondence with the king's court; he is even said to have been accessary to the death of Agnes Sorel. His father, however, obliged him to flee to Burgundy, and he lived five years at Gennep, in Hainault, in a dependent condition. He repeatedly appeared disposed to return, when the king's death seemed to be at hand, but, with the restoration of his father's health, always declined so doing. Charles VII died in 1461, having, from fear of being poisoned by his son, hardly ventured to eat any thing, and thus lost his life by excessive care of it. Louis now hastened to Rheims to be crowned. He promised pardon to all who had used force against him in the service of his father, excepting seven, whom he did not name. He swore not to increase the taxes, and immediately broke his oath. The ministers of his father were dismissed, and men of the lower orders—barbers, tailors, &c.—assumed their places. Insurrections broke out at Rheims, Alençon, &c., in consequence of his imposition of new taxes, in violation of his oath; but they were soon quelled, and followed by many executions. Louis now made a tour through the south of his dominions, supported the king of Arragon in his usurpation of Navarre, and obtained the cession of Roussillon and Cerdagne. His policy became more and more evident. Whilst he pretended to reconcile contending parties, he secretly instigated them against each other; and, whenever he had a meeting with a foreign prince, he corrupted his courtiers by bribes, and established secret correspondences with them: instances of this are to be found in his conduct as arbitrator between Castile and Arragon (1463), at his meeting with Henry IV of Castile, on the Bidassoa, and, at an earlier period, at the court of the duke of Burgundy; he even formed the design of seizing the duke of Burgundy and the count of Charleroi. His vassals rebelled against him on account of his treatment of Francis II, duke of Brittany, whom he attempted to deprive of his rights. The duke, being taken by surprise, had promised every thing required of him, but encouraged the dukes of Lorraine, Bourbon, Alençon, Nemours, Burgundy, and the king's brother, the duke of Berri, to conclude the *ligue du bien public*, which, in 1465, began open hostilities. The Burgundians besieged Paris, and the king could force his way to his capital only by means of the battle of Montlhéry. But Louis extricated himself, on this as on other occasions, by artful treaties, which he never observed longer than he was compelled to. He consented to yield Normandy to his brother, part of Picardy to Burgundy, &c.; but, no sooner was the league dissolved, than he declared that Normandy could not be severed from France, and forced his brother to seek refuge in Brittany. The duke, however, was too weak singly to maintain the struggle against the king, and signed a sort of capitulation just as Charles the Bold, the young duke of Burgundy, approached with an army to his relief. Louis, who might have risked a battle with Charles, preferred negotiation, which, however, proceeding slowly, he requested a passport from the duke of Burgundy, and actually went to visit him at Peronne. He had, just before, secretly instigated the people of Liege to rise, and promised them aid. Charles, having discovered this act of treachery, was furious with rage, and hesitated three days (during which he kept the king in prison) as to what course he should adopt. Nothing but the aversion of Charles to take the life of a king, and the greatest presence of mind on the part of the latter, who asserted his innocence under the most solemn oaths, saved him.* He was obliged to accompany Charles to Liege, and to witness the pillage and slaughter of which he had been the cause. A peace was concluded on favorable terms for Charles and his allies; but, when Louis returned to Paris, he used every artifice to evade its fulfilment. He had promised to cede Champagne to his brother, but persuaded him to take Guienne instead. The duke of Burgundy, irritated at this conduct, secretly concluded an alliance with England and Brittany. Meanwhile, Louis XI had become the father of a prince (afterwards Charles VIII), and the duke of Guienne had lost all hope of ascending the throne of France. He, therefore, renewed his connexions with Burgundy. Louis obtained information of these proceedings, and soon after, the duke of Berri died of poison administered in an apricot. It never has been doubted that the king was the perpetrator of the crime, though he ordered masses to be said for the deceased. The duke of Burgundy openly accused him of the murder of his brother, and also of an attempt on his life, whilst Louis charged Charles with a design of assassinating him. The war broke out between them with renewed fury, but an armistice was soon after concluded, in which the duke of Brittany was included. The king of Arragon, who had also waged war against Louis, was not a party to this treaty, and the French king now turned his arms against that prince, from whom he wrested a large extent of territory. He sent the cardinal Jouffroi against the count of Armagnac, who atoned for his constant rebellions by a terrible death. During the armistice, Charles had attacked Neuss, with great loss. Louis united with the emperor Frederic III and the Swiss, and attacked Burgundy, in 1475. He concluded a truce of seven years with Edward IV of England, who had hastened to assist Charles, by the promise of a sum of money and a pension, and of marrying the dauphin to an English princess. Burgundy and Brittany soon after concluded another armistice with him, by which St. Quentin was ceded to Louis, and the *connétable* count St. Pol was given up to him. After the death of Charles the Bold (q. v.), before Nancy, in 1477, Louis took possession, by force, of a considerable part of his dominions, as vacant fiefs of France, and rejected the proposed marriage of the daughter of Charles, then 20 years old, with the dauphin, who was but ten years of age. Maximilian, son of the emperor Frederic III, obtained the hand of that princess, with a part of her dominions, and defeated the forces of Louis at Guinegatė in 1478. After protracted negotiations, peace was finally concluded, Dec. 23, 1482, Mary being then dead, and the city of Ghent remaining faithful to her heirs, Margaret and Philip. It was agreed that the dauphin should marry Margaret, and receive the counties of Artois and Burgundy, &c., and that Philip should receive the remaining territories. In 1481, Louis, who had been twice affected by apoplexy, haunted by the fear of death, shut himself up in his castle of *Plessis-lès-Tours*, endeavored to conceal the state of his health, loaded himself more than ever with images of saints and relics, continued to commit crimes and ask pardon for them from *sa bonne dame, sa petite maitresse* (the virgin), and died at last, Aug. 31, 1483. The great object of Louis was the consolidation of France, the establishment of the royal power, and the overthrow of that of the great vassals. He has often been blamed for neglecting to marry the dauphin to Mary of Burgundy, and allowing her to be united to an Austrian prince; also for not taking the opportunity to mar ry the dauphin to Joanna, daughter of Ferdinand and Isabella, which would have made Charles VIII heir of Spain and America. But Châteaubriand says, that mere increase of territorial dominion was never the policy of Louis. He refused the investiture of Naples, and, when the Genoese offered to take him for their sovereign, he answered, "The Genoese give themselves to me, and I give them to the devil." His great object was to overthrow the feudal aristocracy, and make himself absolute; and he neglected no opportunity and spared no crime to effect his purpose. The chronicles of the time enumerate four thousand people who perished on the scaffold, or by the gibbet, during his reign. Tristan, his chief hangman, was his favorite. His ministers and companions were of the lowest classes. His cruelties were often studied. The children of the duke of Nemours were placed under the scaffold, in such a manner that their father's blood flowed upon them; they were then thrown into dungeons, where they were exposed to great suffering, and their teeth were pulled out at intervals. There was no great man in his reign, and no virtue. Fear supplanted every other feeling. The people were as submissive as galley slaves. On the other hand, he encouraged commerce as much as the ignorance of his times allowed, was extremely active, and attended to every thing. The contradictory traits of his character occasioned a singular opposition in his tastes and feelings. He was, at the same time, confiding and suspicious, avaricious and lavish, audacious and timid, mild and cruel. "Towards the end of his life," says Châteaubriand, "Louis XI shut himself up in *Plessis-lès-Tours*, devoured by fear and ennui. He dragged himself from one end of a long gallery to the other, surrounded by grates, chains, and avenues of gibbets leading to the castle. The only man who was seen in these avenues was Tristan, chief hangman, and the companion of Louis. Fights between cats and rats, and dances of young peasant boys and girls, served to amuse the tyrant. It is said that he drank the blood of young children to restore his strength. *De terribles et de merveilleuses médicines*, say the chronicles, were compounded for him. Yet his efforts could not avert death. Louis XI was the first French monarch who had the title of *most Christian king*." The principal counsellors of this prince were Philip de Comines (q. v.), and John du Lude, called, by his master, *Jean des habiletés*.

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* Our readers are acquainted with the fine representation of this scene by sir Walter Scott, in his Quentin Durward.

Louis XII. (See *Appendix*, end of this volume.)

Louis XIII, surnamed the *Just*, in the early part of his reign, from what cause is not known, was born in 1601, the son of Henry IV and Maria de' Medici. He ascended the throne May 14, 1610, after the murder of his father. Maria de' Medici, who was made guardian of her son and regent of the kingdom, squandered the treasures of the crown in forming a party for herself, and departed from the principles of her husband, especially by forming a close alliance with Spain. The troops were dismissed, and Sully was obliged to retire from the court. The princes of the blood and the nobles took advantage of the weakness of the kingdom occasioned by these measures; they rose in rebellion, with the marshal Bouillon at their head. The government was compelled to yield to their demands, and these concessions led to still greater encroachments upon the rights of the crown and people. France became the prey of internal parties and civil dissensions, which the Florentine Concini, marshal D'Ancre, prime minister at that time, was utterly unable to suppress. The disturbances rose to the highest, when the king, in 1615, married a Spanish princess. Henry II, prince of Condé, abandoned the royal party, and took up arms in conjunction with the Huguenots. The king, too weak to oppose this attack, made peace with the prince, but sent him to the Bastile some time after, whereby another civil war was kindled, in which, however, the insurgents had no success, and, the marshal D'Ancre, whom the young king hated, being murdered with his connivance, (1617), tranquillity appeared to be again restored. (See *Luynes*.) But when the king, soon after, banished his mother to Blois, new disturbances arose; for the people, who had hated Maria on account of her tyranny, now took compassion upon her, in her misfortune. The king was obliged to be reconciled with her, and a formal peace was concluded at Angoulême (1619), between the contending parties. But it was hardly signed, when it was again broken. Maria, at the instigation of the bishop of Luçon, again took up arms against her son. A new reconciliation took place, only to be followed by new dissensions. During these disturbances, the Huguenots rose in arms, with Rohan and Soubise at their head; and a great part of the kingdom rebelled against the king, who now delivered himself up to the guidance of the cardinal Richelieu. (q. v.) After victory had inclined, sometimes to one side, sometimes to the other, and both parties felt deeply the necessity of repose, peace was again concluded between the king and the Huguenots (1623). This also continued no longer than the preceding. Rochelle, the head-quarters of the Huguenots, revolted, and was supported by England. The king drove the English to the sea, conquered the island of Ré, and at last (Oct. 28. 1628), Rochelle likewise, which, under the spirited command of the mother of the duke of Rohan, had defended itself for more than a year, and contended with all the horrors of a siege. This siege cost the crown 40 million livres. Afterwards a war arose with the emperor, who had refused to the duke of Nevers the investiture of Mantua. The united forces of the emperor, Spain and Savoy, were again defeated by the French, at Vegliano (1630), and the duke of Mantua confirmed in his possessions by the peace of Chierasco (1630). The only brother of the king, Gaston of Orleans, now revolted against him, in conjunction with the queen mother. The insurgents were, nevertheless, defeated; the duke of Montmorenci, in alliance with Gaston, was vanquished in the battle of Castelnaudary, Sept. 1, 1632, taken prisoner, and executed at Toulouse, October 30, of the same year. Gaston received a pardon. In the succeeding war with Spain, which continued 25 years, during 13 of which it was waged in Germany, success inclined sometimes to one side, sometimes to the other; yet the king was at last enabled (1636) to expel from the French dominions the Spaniards, who had landed in Provence, and the imperial troops which had penetrated as far as Burgundy. The events of the following year were yet more favorable to France; but the exhausted state of the finances opposed an insuperable obstacle to the progress of the French arms. In this state of misfortune, Louis XIII died, May 4, 1643. During this war, Louis had (Aug. 15, 1638) put his person, his crown and kingdom, under the protection of the holy virgin; a day which was long regarded as a festival in France. His equestrian statue, in bronze, erected 1639, was destroyed by the people in 1792.

Louis XIV, king of France and Navarre, was born Sept. 5, 1638, after a barrenness of 22 years on the part of his mother. Being, therefore, considered a particular gift of Heaven, he was called *Dieu-donné*. He came into the world with several teeth, on which subject Grotius has some jests in his letters. He died Sept. 1, 1715. He married, in 1660, Maria Theresa, daughter of king Philip IV, who died July 30, 1683. In the same year, he secretly married Françoise d'Aubigné, widow of Scarron (madame de Maintenon, who died April 15, 1719). His principal mistresses were Françoise, duchess de la Vallière (see *Vallière*), the marchioness of Montespan, mother of the duke of Maine and of the count of Toulouse (see *Rochechouart*), and Maria Angelica d'Escorailles, duchess of Fontanges, who died in 1681.—Louis XIV was five years of age when his father, Louis XIII, died. His mother caused herself to be declared regent and guardian. To Mazarin was intrusted the superintendence of the education of the king, which was much neglected. But, although Louis learned nothing from his teacher, the archbishop Péréfixe, he observed much. A deep impression was made on him, during his minority, by the commotions of the Fronde (see *Fronde*, and *Retz*), which set so many different characters in action. Sept. 7, 1651, Louis proclaimed his majority; but Mazarin continued at the head of the government till his death, March 9, 1661. From this time, Louis reigned 54 years, without any prime minister, in complete accordance with his own words—*L'état, c'est moi!* From Mazarin he had learned an ambitious policy, and a contempt of the parliament. On one occasion, when Mazarin could not effect his purpose, the young king, 17 years of age, entered the hall of the parliament of Paris, booted and spurred, with his whip in his hand, and commanded an edict to be registered. Every thing united to surround him with splendor. History, however, has not confirmed his title of *great.* Louis possessed some royal qualities, perhaps all that are requisite for show. Thus he was enabled to gratify the inclination of the French for theatrical display; he even gave this inclination a permanent direction. His reign was adorned by great statesmen and generals, ecclesiastics, and men of literature and science. The civil wars had produced the same effect, which the revolution afterwards produced, of calling forth men of talent and energy, who made the national glory and the splendor of the king the object of their exertions. Louis himself had a taste for a kind of greatness. "This was," as John Müller says of him, "the source of the benefits which he rendered to the arts and sciences, of the disturbances of Europe, of the violation of all treaties, in short, of the remarkable character of his reign." The king was, unfortunately, ignorant, and destitute of settled principles. *Il aima la gloire et la religion*, says Montesquieu, *et on l'empêcha toute sa vie de connaître ni l'une ni l'autre.* His person was vigorous and noble.* With handsome features and a tall form he united a peculiar dignity of language and manner. The noble and charming tone of his voice won the heart; but the loftiness of his whole demeanor inspired respect. His kindness never passed into familiarity. One look of his kept the witling in check. The Spanish gravity, which he inherited from his mother, was tempered by the graces of French politeness. Naturally so grave, that even the oldest courtiers never recollected to have heard more than one jest from his mouth, he loved, nevertheless, gayety in others, applauded Molière's comedies, and laughed at the witty sallies of madame de Montespan. At his court, which became a model for all the others of Europe, every thing had reference to the king, and tended to augment his dignity. The nearer you approached his person, the higher rose your awe. It was a reverence resembling worship, which was paid to the throne, the person of the king, and the pride of the nation. On the whole, to use an expression of Bolingbroke's, hardly ever has a king played his part better. But a theatrical representation he always would maintain, even in trifles; for example, in his latter years, he never appeared in the presence of any one without his great peruke. But he possessed, nevertheless, qualities which are requisite for playing well the part of a monarch. "The qualities of his mind," says Grouvelle, "were justness, solidity, constancy and application. He united therewith habitual discretion and the seriousness which conceals deficiencies. He was naturally silent, and inclined to observation." Louis had nothing of the hero, but he possessed the art of ruling those who surrounded him. He was no general, but was able to appropriate to himself the reputation of his generals. Resoluteness and energy elevated him, at times, above the restrictions of courtly etiquette. Early in life, he danced in the ballets. But hearing at the theatre, when *Britannicus* was performed, the verse in which it is said of Nero, as a reproach, *Il excelle à se donner lui-même en spectacle aux Romains*, he never again danced in public. The manners of his time favored his natural disposition to gallantry. He loved with enthusiasm, and expressed his feelings with dignity and tenderness. With an excellent memory, his judgment was sound; he knew how to say what was suitable at the right time, and with dignity and delicacy; he understood how to punish and reward with words. Thus after the widow of Scarron, supported by many friends, had solicited in vain, for several years, her husband's pension of 1500 livres, he gave her a pension of 2000 livres, with the words, *Madame, je vous ai fait attendre long tems, mais vous avez tant d'amis, que j'ai voulu avoir seul ce mérite auprès de vous.* The following trait shows, that, even in generosity, he had a dash of ostentation. The marquis of Uxelles, having been compelled to surrender Mayence, 32 days after the opening of the trenches, threw himself at the feet of the king, whose displeasure he feared, while he related the reasons of the surrender. "Rise, marquis," said the king; "you have defended the fortress like a man of spirit, and capitulated like a man of sense." He intimated to the aged Boileau, who had retired to Auteuil, and appeared but seldom at court, that when his health permitted him to come to Versailles, he would always have a half an hour for him. Louis was above the praise of trifles. When De Grammont found fault with a madrigal of the king's, Louis was pleased, that the courtier, being ignorant of the author, had spoken so freely. Boileau, also, ventured to blame some verses which met the king's approbation, and Louis was by no means displeased. "He understands such things; it is his business," was his remark. Low flattery he repelled: thus he rejected the prize-question of the French academy—"Which of the virtues of the king deserves the preference?" By the esteem which he manifested for Boileau, Molière, Bossuet, Massillon, &c., he contributed to inspire the higher classes with a respect for the arts and sciences, and a taste for the society of men of learning and genius. But this was only meant to give splendor to his reign. Corneille and Lafontaine, and the meritorious scholars of the Port Royal, remained unnoticed by him. The great Arnaud, doctor of the Sorbonne, was compelled to live almost entirely concealed, from 1641, and died in exile. Louis was 20 years of age, and devoted to the pleasures of the court and chase, when Mazarin died. "To whom shall we now apply?" asked his secretaries of state: "To me," he replied with dignity; and the handsomest man of the kingdom, who had grown up in perfect ignorance, with his heart full of romantic gallantry, devoted himself sedulously to business and the acquisition of information. In the first half of his reign, he labored daily eight hours. But his natural pride often degenerated into haughtiness, his love of splendor into useless extravagance, his firmness into despotism. Determined no longer to tolerate Calvinism in France, he said—"My grandfather loved the Huguenots without fearing them; my father feared, without loving them; I neither fear nor love them." He evinced his severity, also, in the case of Fouquet, superintendent of finance, from whom he accepted a *fête*, when he was on the point of condemning him to perpetual imprisonment, in 1661; with equal cruelty he took revenge for his offended pride, on the pope, in 1662. He was, as may be seen from his *Instructions pour le Dauphin*, a despot from religious conviction. As an absolute sovereign, he regarded himself as the proprietor of all the possessions of his subjects, but deemed himself bound to make a wise use of his power. He rarely, however, mistook the extraordinary men who signalized his age and France. He manifested an interest in the advancement of his nation; but, deceived by self-love, he submitted to the influence of others. While he believed himself free and independent, madame de Maintenon exercised the strongest power over him, by her talents, piety and virtue. His credulity went so far, that he assured the nuncio, in 1685, that whole cities, such as Uzes, Nismes, Montpellier, &c., had been converted! While the Protestants were robbed of their property and freedom, he was engaged in splendid hunting expeditions. Two meritorious naval officers, who had taken the liberty to offer some modest suggestions respecting a naval school, were imprisoned for a year, and cashiered. The reputation of Louis is the work of his ministers and generals. (See *Turenne*, *Condé*, *Luxembourg*, *Catinat*, and *Villars*.) Feuquières raised the art of war into a science. Louvois (q. v.) introduced discipline into the army. Vauban greatly improved the art of fortification. Men like Estrades and D'Avaux, made diplomacy at home in France. Louis himself was capable of negotiating immediately with ambassadors, on matters of state. The splendor of the French court, the boldness displayed in the cabinet and the field, the fame of the nation in arms and arts, introduced the French language into the courts of Europe, and from the peace of Nimeguen, in 1678, it gradually supplanted Latin, as the official language of states. But Colbert was the chief source of the greatness of Louis and France. That ordering, creating, and sagacious spirit originated the great standing armies of Louis, and imposed this burden on all the governments of Europe; at the same time, he maintained 100 ships of the line, and encouraged manufactures, navigation and commerce; and the first French settlement in the East Indies was founded at Pondicherry. Colbert developed the astonishing resources of France, in population, natural riches and national spirit. But, after his death, in 1683, Louvois and Louis plucked the fruit, while they felled the tree. The pride of the king, and the vanity of the nation, seconded the ambition of the despotic minister of war. Notwithstanding all this oppression, disaffection never found a rallying point of resistance. Such gratification did the nation experience in the splendor of a cruel and prodigal reign! Five wars, the revocation of the edict of Nantes (which Benj. Constant has well termed *l'erreur de Louis XIV, et le crime de son conseil*), the building of Versailles, the hatred of the nations, the battle of La Hogue, and the deep policy of William III of England, overthrew the power of Louis in the Spanish war of succession. Favorable circumstances, the opinion of the age, and the consciousness of strength on the part of a people not yet corrupted, were all that preserved from downfall the tottering throne of the failing king. Death rapidly snatched away those who stood nearest him; first his only son, then his grandson, with his grandson's wife and eldest son, the hopes of France. The court intrigues, satiety, devotion, and the religious predominance of Maintenon, together with the influence of his confessor, La Chaise, and his far worse successor, Tellier, from 1709, made the heart of the aged king indifferent to the state of his dominions. The proud Louis, who imagined himself competent to every thing, who, after the death of his great minister, selected young men, whom he could guide at pleasure, was, at last, so led astray by his confessor, Tellier, that he caused the constitution *Unigenitus*, drawn up according to Tellier's plan, by three Jesuits, to be issued as a bull, in 1713, by pope Clement XI, who was equally deceived, thus giving the Jesuit party the triumph over their opponents, and, at the same time, producing commotions, which continued for forty years to agitate the church and state. Louis manifested, however, a strength of mind and firmness in death, as well as in the misfortunes which, in his last years, shook his throne and house; for Heinsius, Eugene and Marlborough humbled the pride of France before the Spanish throne was secured to the second grandson of Louis, by the death of Joseph I and the victory of Villars at Demain. He submitted to all conditions, unless they were dishonorable, but such he rejected with scorn. When Philip was finally established on the throne at Madrid, the partition wall of the Pyrenees was not destroyed, as Louis had hoped, when he said to his grandson, on his departure, *Il n'y a plus de Pyrénées;* and France was burdened with a debt of 2,500,000,000 livres. The plan of attaching Spain to France, in order to counteract the connexion of England and Holland (which threatened the French commerce, navigation and colonies), exhausted France, and laid the foundation of that revolution which was not to terminate till a century after the death of Louis XIV. Grouvelle says, therefore, of him, with justice—"We may allow him good qualities, but not virtue. The misfortunes of succeeding reigns were, in part, his work, and he has hardly influenced posterity, except for its ruin." The same judgment is passed by madame de Staël, in her Reflections on the French Revolution. What is called the age of Louis XIV, as compared with Pericles, Augustus and the Medici, was a result of the impulse which circumstances communicated to the national genius. Louis, who was not himself possessed of a great, comprehensive mind, and who was much and laboriously occupied on trifles, patronized genius only as a necessary instrument for his purposes. At Colbert's suggestion, he founded the academy of sciences and that of inscriptions; he improved the French academy, encouraged able writers to raise his reputation and the French language above the hatred of nations, and the sphere of its influence was wider than that of his armies. His nation gave laws to Europe, in matters of taste. The tone of French society was a model for the German courts, and corrupted the spirit of the nobility, while it destroyed morals. It is not, however, to be forgotten, that the expulsion of the Huguenots from France also promoted the diffusion of the French language and manners. The great art of pleasing was the soul of all the other arts in France; it even opened to science itself the avenue to the circles of the polished classes. Pascal, who wrote with vigor and delicacy, the sublime Bossuet, and Fenelon, splendid in his humility, the great Corneille, who boldly took his flight above the surrounding barbarism, the unique Molière, the inimitable Fontaine, and the calm thinker and spirited satirist, Boileau, the friend of the classical Racine, kindled the blaze of light and philosophy in France. "Their electrical shock roused," as John von Müller expresses himself, "the north from the monotonous studies of its universities." The fine arts were not neglected. Of Lebrun's epoch of art under Louis XIV, we are reminded by 34 paintings by this master in the museum of the Louvre. The Flemish school, particularly Teniers, did not please the king. Lesueur, Poussin and Mignard were the ornaments of the French school. Girardon was distinguished among the sculptors. Lenôtre laid out the splendid gardens of Versailles; Perrault built the colonnade of the Louvre, Hardouin Mansard the dome of the invalids. Lulli was the creator of French music. A large proportion of the great monuments of France, which excite the astonishment of the traveller, had their origin in the reign of Louis. He constructed the wonderful harbors, shipyards and fortifications at Brest, Rochefort, L'Orient, Havre, Dunkirk, Cette and Toulon. At his bidding, the canal of Languedoc united the Mediterranean with the ocean.—See Voltaire's *Siècle de Louis XIV*, the duke de St. Simon's *Œuvres complètes pour servir à l'Histoire des Cours de Louis XIV, de la Régence et de Louis XV;* and the *Mémoires de Dangeau*, as well those published by madame de Genlis, as those published by Lemoncey (Paris, 1818), in his *Essai sur l'Établissement monarchique de Louis XIV;* the *Œuvres de Louis XIV* (vol. i—vi, Paris, 1806), published by the diplomatist Grouvelle and the count Grimoard, and the *Considérations sur Louis XIV*, by Grouvelle, contained in this selection, which, although too favorable, are an excellent introduction to the history of this monarch. The *Instructions pour le Dauphin*, of 1661—1668, comprised in that work, are supposed to have been taken down by Pelisson, from the mouth of the king. But Louis himself did not practise his precepts. Thus he warns the dauphin to beware of the influence of favorites, and still more of the love of the female sex, which tends to divert the mind from business. These writings, besides other historical matter, contain information respecting the system of corruption practised by Louis XIV, even at German courts, e. g at Berlin. The *Mémoires* and *Pièces militaires*, which constitute the third and fourth volumes of the work, relate to the campaigns of 1672—1678, and that of 1692. In Grimoard's preface, they are said to be not unimportant for the history of the war. The letters of Louis, in the two last volumes of this work, are mostly of little consequence. The politeness and dignity with which this proud king writes to his ministers and generals are remarkable. This delicate tone was then general, and gave to language and manners that agreeable refinement which made Paris so attractive.

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* John Kettler, of Zurich, cast an equestrian statue of Louis XIV, at Paris, in 1699.

Political Occurrences during this Reign. The most splendid period of the reign of Louis XIV extended from the peace of the Pyrenees, concluded by Mazarin, in 1659, to the death of the great Colbert, in 1683. That peace, however, lasted only till 1665, when Louis, on the death of his father-in-law, Philip IV, king of Spain, laid claim to the Spanish Netherlands, by virtue of the right of *devolution*, as it was called (which was a private law in part of the Netherlands, but could by no means be considered the rule of succession to the government of these states). Holland, therefore, concluded, in 1668, a triple alliance with England and Sweden, for the preservation of the Netherlands, of which alliance, although Louis was victorious in two campaigns, the peace of Aix-la-Chapelle was the result. Louis retained, indeed, the conquered places in the Netherlands, but was compelled to abandon his intentions on the country at large, and, as he attributed this to the triple alliance, he resolved on a retaliatory war against Holland, having previously succeeded in separating England and Sweden from their connexion with the republic, and uniting them with himself. This war, undertaken without regard to the commerce of France, to which it was very detrimental, and in which Spain, the German emperor and Brandenburg also engaged against France, continued from 1672 till the peace of Nimeguen, concluded 1678 and 1679, in which Holland lost nothing, while Louis XIV received from Spain, Burgundy (the Franche Comté), which the king of Spain had previously held, as an appurtenance to the circle of Burgundy, under the sovereignty of the German empire, and 16 places in the Netherlands. Louis lost, in this war, his two greatest generals, Turenne and Condé; the former fell at Sasbach, in 1675; the latter retired in 1676, on account of his feeble health. Louis, however, still had Catinat, Crequi, Luxembourg, Schomburg and Vauban. After the peace of Nimeguen, it would have been politic for Louis to have ceased prosecuting, for a while, his plans of aggrandizement; but he renewed, immediately after, the *réunions*, as they were called. In the three treaties of peace, a number of places, with all their appurtenances, had been ceded to France, though it had not been decided what really did pertain to them. Louis, therefore, established, in 1680, chambers of *réunions* at Metz and Brisach, whose office it was to accord him, under the form of right, every thing that could be considered in any way as belonging to those places. France, in this manner, acquired large districts on the borders of the Netherlands and of Germany. Louis would also gladly have obtained Strasburg, but, as even the chambers of *réunions* could start no formal claim to it, this important place was quietly surrounded by soldiers, and compelled to surrender, in 1681, without a blow. Spain and the German empire protested against this act, but both found it expedient, in 1684, to enter into a 20 years' truce with Louis XIV, by which this monarch obtained, for that time, besides Strasburg, all the places reunited prior to August 1, 1681. Meanwhile, Colbert had died, in 1683. From this time, France declined with the same rapidity that it had risen under his administration. The first blow it received, was the revocation of the edict of Nantes, October 22, 1685, after several years' oppressions of the Protestant party, by which measure the kingdom lost 700,000 of its most valuable subjects. To this measure the king was led by the united exertions of the two parties of the court, in other respects opposed to each other—the parties of the minister Louvois and of Maintenon, who coöperated with the generally benevolent confessor of the king, Lachaise. Colbert, to his death, had opposed the adoption of violent measures, which might induce the Protestants to emigrate. France was, soon after, involved in a new war. Several circumstances gave Louis XIV and Louvois opportunity, in spite of the 20 years' truce, to enter the field anew. The war, which Louis now waged from 1688 to 1697, against Germany, Holland, Spain, Savoy and England, was terminated by the peace of Ryswick, in which Louis resigned all the *réunions*, and, in addition, ceded to Germany, Brisach, Friburg, Kehl and Philipsburg, besides all the smaller fortresses erected by France on the German side of the Rhine. Although, throughout the war, Louis was conqueror rather than conquered, he was bent on peace. The exhaustion of his kingdom, and especially the fear that a continuance of the war might frustrate his views on the Spanish succession, compelled him to yield. The death of Charles II, king of Spain, to which Louis had long looked forward, took place at the end of 1700. Louis had already concluded treaties of partition, with respect to the Spanish succession, with England and Holland; but Charles II, by a secret testament, had designated the grandson of Louis, Philip of Anjou, as heir of the whole monarchy, to the disadvantage of the house of Austria, in which the inheritance was legitimately vested. On the enforcement of this testament Louis insisted, after the death of Charles, and was thus involved in the Spanish war of succession, 1702—13, which he precipitated by acknowledging the English pretender (son of James II), in violation of the peace of Ryswick. The finances of Louis were in great disorder; he had also lost many of his great men in the cabinet and field; while, on the other hand, his numerous enemies—England, Holland, the emperor and the German empire, Prussia, Portugal and Spain—could oppose to him two of the greatest generals—Eugene and Marlborough. France suffered greatly by this war, which was terminated by the treaty of Utrecht, in 1713, and those of Rastadt and Baden, in 1714, brought about by the concurrence of several circumstances favorable to France, especially by the change that took place in the political system of England, in 1710, after Louis had several times proffered peace, without success, on account of the hard terms insisted on by his enemies. Louis made, indeed, some concessions to England, Holland and Savoy, but saw his grandson acknowledged as king of Spain, under the name of Philip V. This, however, was connected with the condition of a renunciation, which should prevent the possibility of any future union of the Spanish and French crowns. The internal prosperity of the kingdom was totally ruined by this war, of which the expenses, in the year 1712 alone, amounted to 825,000,000 livres. The great army which he kept on foot, was what chiefly excited and nourished in Louis the love of conquest. He maintained a larger standing army than any other prince of his time. It rose from 140 to 300,000 men. Respecting the policy of Louis XIV, the following is the language of Flassan:—"The cabinet of Louis XIV, notwithstanding the diversity of talents of his ministers, exhibits, in its most important negotiations with foreign powers, almost always the same character of lofty pretension. The spirit of his policy may be clearly seen in the manner in which he insisted on interpreting the treaties of Münster, of the Pyrenees, and of Nimeguen, and the renunciation of queen Maria Theresa. The means of imparting validity to such arbitrary explanations, were, force of arms, artful diplomacy, expert spies, and corruption. The king expended great sums in securing the favor of sovereigns—Charles II, for example, of England—their ministers and mistresses. Against his enemies, he employed, even in times of war, clandestine popular excitements; he encouraged the commotions in Catalonia, Sicily, England, Portugal and Hungary. More than any king before him, he enlarged the boundaries of the kingdom, especially towards the north; by which means, he secured the capital against the accidents of war. Till the battle of La Hogue, May 29, 1692, in which the combined English and Dutch fleet, under admiral Russel, overcame the French admiral Tourville, he maintained the balance of power on the ocean, and made his flag respected by the natives of Barbary and by the most powerful maritime states. On the continent, he held a decided predominance till the peace of Nimeguen, so that he had no reason to fear any coalition of the other powers. To this his connexion with Sweden and some of the small German principalities mainly contributed. He subsequently fell somewhat from this high elevation, but continued to be the first sovereign of Europe, even after his defeats in the Spanish war of succession; for, after he had severed the league formed against him by the peace with England, neither Austria nor the German empire could long offer resistance." To this foreign policy, favored by the weakness and political errors of his neighbors, was added an arbitrary internal administration. The system of police, organized by D'Argenson, in the last years of the reign of Louis, was, in its effects, as formidable as an inquisition.

Louis XV, the great grandson of Louis XIV, and son of that excellent duke of Burgundy (q. v.), who was educated by Fénélon, was born February 15, 1710, commenced his reign in 1715, and died May 10, 1774. He married, in 1725, Maria, the daughter of Stanislaus Leczynski (she died in 1768). The History of Louis XV, by Antoine Fantin Desodoards (Paris, year VI, 3 vols.), and the Age of Louis XV, by Arnoux Laffrey, published by Maton (Paris, 1796, 2 vols.), do not correspond to what might be expected from French writers, after Voltaire's work on the reign of this king. The memoirs of Duclos, St. Simon and others, the History of France in the 18th century, by Lacretelle (Paris, 1811, 6 vols.), and the well known work *La Vie privée* *de Louis XV* (4 vols.), contain important materials for the history of this unworthy and degraded king, who, by his licentiousness, bigotry, prodigality and despotism, rendered the evils of the state incurable. The age which educated and corrupted him, and on which he and his court reacted in a not less injurious manner, explains not only the origin, but also the spirit and malignity of the revolution. A great part, however, of this fault, falls on the regency, administered by Philip, duke of Orleans, and the cardinal Dubois, till 1723. (See *Orleans, Philip of.*) The influence of the age of Louis XIV on the religious and political notions of the cultivated classes, and especially the increasing power of public opinion in France during the reign of Louis XV, are conspicuous. The characteristic of the age of Louis XV, consists in the intellectual developement of the nation, in the splendor and boldness of new philosophic views, which had so strong an influence on society. From them proceeded a fearful separation of reason from morality, of the passions from rectitude, and of enlightened ideas from the forms of state and church. The immoderate love of pleasure, which, from the higher, descended into the lower classes, and was defended or excused by the philosophy of the day, was united with an avaricious selfishness, which was awakened by the rash financial schemes of Law and the regent, and connected with fraud, despair, and the bankruptcy of 500,000 citizens. From this love of pleasure and selfishness, proceeded most of the faults and vices of the contemporaries of Louis XV. The moral infection spread farther and farther, and ate deeper and deeper into the roots of public spirit and every civil virtue. Louis XIV left his great grandson and successor with the words, "I have, against my inclination, imposed great burdens on my subjects; but have been compelled to do it by the long wars which I have been obliged to maintain. Love peace, and undertake no war, except when the good of the state and the welfare of your people render it necessary." A much deeper impression should have been made on the mind of the royal child, by the conduct of the people who accompanied the hearse of the king with insults and the grossest expressions of joy. But what an idea must the boy of six years have formed from the *lit de justice* (the strongest exertion of despotism), held by the regent, to confirm his regency! How different were the views of his father, the noble duke of Burgundy, who intended, in case he ascended the throne, to restore to the people their lost rights! In his 7th year, Louis was first placed under the care of men. But his tutor, the marshal Villeroi, was no Montausier, Beauvilliers or Fénélon. On one occasion, when Louis had recovered from a violent sickness, his subjects manifested their satisfaction by repeated rejoicings. The court and gardens of the Tuileries were full of men. Villeroi carried the king from one window to another. "See them, my king! your people: all this people belongs to you; all that you see is your property; you are lord and master of it." The instructer of the young king, the prudent and modest Fleury, won the confidence of his pupil in a noble manner. A third, who had, however, less influence on the young king, was his confessor, the Jesuit Linières. The cardinal Dubois had effected his appointment to this important office against Fleury's wish and the advice of cardinal Noailles. Fleury, however, acquired the entire confidence of Louis, who, after the death of the regent, in 1724, by the advice of his instructer, appointed the duke of Bourbon chief minister of state, who could undertake nothing, however, without the knowledge and consent of the prelate, then 73 years old. Till now, the king, who entered upon the government himself in 1723, but had hitherto intrusted the management of affairs to the former regent, as first minister of state, had shown no will of his own. A Spanish princess of six years had been destined for his wife, and had been subsequently sent back to her parents; the marshal Villeroi had been banished from the court, and the king had married Maria Leczynski, the daughter of Stanislaus, the dethroned king of Poland, indifferent and submissive in all these proceedings. But when the party of the duke attempted to get rid of the prelate, and the offended Fleury had retired to his country seat, the king insisted on his return with such firmness, that the duke found himself obliged to apply to the prelate, and solicit his return. Soon after, in 1726, Fleury was placed at the head of the administration. He declined the title of first minister, but was, in fact, such till his death, in 1743. His habit of dissimulation extended itself to the king, in whose private life a great change now took place, probably favored by Fleury himself. The noble germ which his application and some generous expressions had manifested, was stifled in sensual pleasures and the luxury of a court life. The peaceful Fleury, who endeavored to restore order and economy, now gave the enervated monarchy a seven years' tranquillity ; but he was not sufficiently enlightened to compose the controversy respecting the bull *Unigenitus*. He soon saw himself, contrary to his will, involved in a war. After the death of Augustus II, king of Poland, in 1733, Louis wished to see his father-in-law chosen successor of Augustus, and declared that the freedom of election should be interrupted by no foreign power ; but the emperor Charles VI, having concluded an alliance with the elector of Saxony, and supported his election as king of Poland, Louis's plan was frustrated, and a war broke out. After two campaigns, France acquired for Stanislaus, who had fled from Dantzic in danger of his life, the possession of the duchy of Lorraine, by the preliminaries of Vienna, in 1735. After the death of Charles VI, in 1740, the project of marshal Belleisle, to dismember the Austrian hereditary states, plunged the aged cardinal into a war, the success of which was frustrated by the parsimony of the minister, then 85 years old. The French armies fought on the side of the elector of Bavaria, who laid claim to the whole Austrian monarchy. England was on the side of Maria Theresa. The conquest of Bohemia was not accomplished ; scarcely could Maillebois, Belleisle and Broglio effect the retreat of the wreck of the defeated army from Bohemia and Bavaria, over the Rhine. Still greater were the losses of France by sea ; for Fleury had neglected the marine. After his death, in 1743, the victories of count Maurice of Saxony (see *Maurice*) gave new splendor to the French arms ; and, by the peace of Aix-la-Chapelle, in 1748, France regained her lost colonies. But the state was, more than ever, exhausted by an unjust and impolitic war. Louis had himself taken a part in several campaigns, and, when he was attacked at Metz by a severe malady, received the appellation of the well-beloved (*le bien-aimé*). The affection felt for him by the French exceeded his deserts ; for Louis became, from this time, more and more unworthy of the public respect, sinking into the grossest indolence and sensuality, and abandoning the management of state affairs to the marchioness of Pompadour. (See *Pompadour*.) She was, in reality, the ruler, the monarch being absorbed in his orgies, or childish amusements and despotic fears. He showed himself, without dignity, the sport of petty passions, and the instrument of external influences. The nation, on which so powerless a government could have no effect, followed entirely its restless caprices. Contests of public opinion, bold hopes and new systems, amused and engaged all classes of society. Every one longed for a new and better state ; obedience became more and more lax, the wish of change more decided ; a few steps more would lead to insurrection. The sensuality of the king put him entirely in the power of the ambitious Pompadour. While she made him lead the shameless life of an Eastern monarch, she sacrificed, according to the caprice of the moment, the honor, wealth, and the prosperity of the state, to those who were able to gain access to her by their attractive qualities. She accustomed the king to the *acquits de comptant*, or warrants for payment, which exhausted the treasury, and introduced confusion into the accounts. The cost of the *parc-aux-cerfs*, as it was called,—the most abominable instrument of the king's voluptuousness,—was defrayed by such *acquits*, which, according to Lacretelle, amounted, eventually, to 100,000,000fr. Louis also loved to play deep, and appropriated, for this purpose, a private chest, the losses of which he supplied from the public chest. Those who lost to him were indemnified by lucrative public offices. In order to increase this fund, he engaged in stock-jobbing and in speculations in grain. The rise and fall of the stocks, and the price of corn, interested him in a manner entirely unbecoming a king. He appropriated a capital of ten millions, from his private treasury, to this disgraceful traffic, and even allowed the name of M. Mielavand to be introduced into the state almanac of 1774, among the officers of finances, as *trésorier des grains pour le compte de S. M.* To relieve his ennui, he printed several books, and was even pleased with the celebrated physiocratical system of his physician Quesnay. He called him his *thinker* (*penseur*), listened with satisfaction when he censured the policy of his ministers, but never troubled himself about the application of his ideas. Towards women he conducted, in public, with the courteousness of a French chevalier, mingled in their petty quarrels, and played the part of a confidant. He was inquisitive about the intrigues of all the courts of Europe, and, to inform himself respecting them, maintained secret agents, of which his ministers, in many cases, knew nothing. The dignified, manly conduct of the dauphin, the virtues of the dauphiness, made no permanent impression on him. He sometimes, however, seemed to feel remorse, especially after the death of the queen. But he soon sought and found solace in his old pleasures. From the year 1769, he was governed by Du Barry (see *Barry*), who is said to have cost the royal treasury, in five years, 180 million livres. As Louis became older, his bigotry and apathy increased, while he sank deeper in sensuality. His secret debaucheries dishonored innocence, and poisoned the domestic happiness of his subjects. The public contempt was expressed in satires, caricatures and songs, to which the people had already become accustomed under the regency. The hatred of the people gave credence to the most exaggerated accusations, and Louis, from fear and aversion, withdrew himself from the public eye. With this carelessness and apathy of the king, the French levity increased continually; every one was engaged with trifles and selfish plans; the most important affairs of state, on the contrary, were neglected. France, at the same time, saw itself involved, in 1754, in a maritime war with England, on account of the forts on the Ohio, and, as if this contest was of no importance, rashly took the side of Austria against Prussia, in 1756. The shrewd Kaunitz had gained the favor of the vain Pompadour, who was offended by the sarcasms of Frederic II. By her influence, the duke de Choiseul (q. v.) was appointed first minister, in the stead of the abbé Bernis, and, May 1, 1756, a new alliance was concluded with Austria, at Versailles, which was unique in history. The French suffered great losses by sea and land; even their military reputation had declined since the battle of Rossbach, Nov. 5, 1757; and, after seven unhappy years, they had reason to congratulate themselves, when Choiseul concluded a peace with England at Fontainebleau, in 1762, and the definitive treaty was settled at Paris, in 1763, although France had to relinquish to England, Canada, as far as the Mississippi, Cape Breton and the islands Grenada, Tobago, St. Vincent and Dominica, together with Minorca. Louis remained indifferent to all these events. The first time that he saw marshal Richelieu after the conquest of Mahon, in 1756, he turned to that general, who was adored by the whole nation, with the question, "How did you like the Minorca figs?" The famous family compact of the Bourbons, by which Choiseul hoped, in the course of the war (1761), to unite forever the policy of Spain, Sicily and Parma with the French interest, was of no great benefit to France. After the war, Choiseul's ministry was marked by several (often violent) reforms; especially by the expulsion of the Jesuits from France, in 1764, and by the acquisition of Corsica, in 1769. Shortly after, Mme. du Barry, in connexion with the chancellor, Maupeou, effected the overthrow of the duke De Choiseul, and elevated to his post the duke of Aiguillon. The quarrel of the latter with the parliament at Rennes, which had written against him in a violent tone, as former governor of Bretagne, and the refractoriness of all the parliaments, especially with respect to the new oppressive financial edicts, induced the king, in 1771, to banish the members of the parliament from Paris, and, soon after, to abolish the parliaments entirely, which were first reëstablished under Louis XVI, in 1774, with certain limitations. The notorious edict which the chancellor Maupeou then issued, called the king the sole and supreme legislator of his kingdom, who permitted parliament, indeed, to protest against a new law, but, after two considerations, might demand unconditional obedience. Thus Maupeou made the absolute will of the monarch a constitutional law! A worthy counterpart of Maupeou was the comptroller-general of finances, the abbé Terrai, who impoverished the country, while he received an income of 1,200,000 livres. In proportion as the king was despised at home, the authority of France was lessened abroad. The partition of Poland took place in 1773, without the knowledge of France. After having sunk into a complete nullity, the king, whom no domestic misfortunes, not even his own attempted assassination, in 1757, by a fanatic, Damiens (see *Damiens*), nor the public misery, could restore to consciousness, died of the small pox, caught of a young girl, by whom the countess Du Barry wished to dispel his melancholy, leaving a debt of 4,000,000,000 livres.

Age of Louis XV.—In proportion as the reign of Louis was weak and pernicious to the state, the spirit of the nation rose, awakened by the times of Louis XIV, and by distinguished men in the arts and sciences. In Paris, public institutions arose; palaces and churches were built (for example, the church of St. Genevieve, by Soufflot, &c.); the military school of Paris, and the *Champs Elisées*, were laid out in 1751, by the minister of war, count D'Argenson; the intendant, Trudaine, prosecuted, with success, the construction of roads. The commerce of Lyons and Bordeaux adorned these cities with regal splendor. Stanislaus Leczynski, who died in 1776, restored the public prosperity in Lorraine, and Pigal executed a splendid monument, which was erected in Strasburg, to the marshal Saxe, who died in 1750. Of the numerous painters of this period, the best were Lemoine and Vernet. But taste degenerated under the influence of a voluptuous court, and art paid homage to luxury. It delighted in empty show, but, at the same time, carried manufactures to perfection. The ingenious Vaucanson applied his talents to the improvement of the Gobelin manufactory. (See *Gobelin.*) Louis XV himself took an interest in the porcelain manufactory established at Sevres, by the advice of madame de Pompadour. At the same time, he is said to have suppressed, from humanity, a means of destruction, which would have been more formidable than the Greek fire; but this is not historically proved. Enterprising and intelligent men, like La Bourdonnaye, the founder of the colonies of the Isle de France and Bourbon, and even his calumniator, Dupleix, extended the commerce of France. Louisiana, Canada, especially St. Domingo and the Lesser Antilles, the colony on the Senegal, and the ports of the Levant, employed the French activity, and enriched the maritime cities. But, by the unjust measures of La Bourdonnaye, the state deprived itself of the advantages acquired in the East Indies over England; and, while France lost Canada and several islands by the manner in which it carried on the war (from 1756—62), it promoted the British power in India. The third estate, however, gradually acquired, by its wealth and intellectual advancement, consequence and influence. Public opinion assumed, in the age of Louis XV, the character of levity, frivolity and boldness, which was afterwards so strongly developed in the revolution. Striking events, such as the trial of the unfortunate John Calas (q. v.), and the execution of the young chevalier De Labarre (q. v.), for sacrilege, brought new opinions into general circulation. But the evil genius of France willed that the decline of morals and religion, contemporary with the abuses of arbitrary power, with prevalent prejudices and the oppressions of the priesthood, should change the light of truth, just springing up in France, into a destroying fire, and the defensive weapon of knowledge into a two-edged sword; that the egotism of sensuality should gain possession of the territory of reason, and that brilliant wit should be more esteemed than a serious purpose and a solid character. This unhappy concurrence of the public misery with sensual licentiousness, stifled those improved views, and that scientific cultivation, which Montesquieu and others, to whom France was indebted for its intellectual influence on the higher classes of society, in a great part of Europe, exerted themselves to disseminate. The ignorant, stupified Louis had an abhorrence of all intellectual cultivation. He feared talented writers, and frequently said of them, that they would be the cause of ruin to the monarchy. He, nevertheless, followed, in the first part of his reign, the advice of cardinal Fleury, who highly esteemed the sciences, and subsequently yielded to the opinion of the court, and especially of Pompadour, who took a pleasure in being denominated the patron of genius, and a judge of the excellent. The most powerful and permanent influence on the spirit of the nation was exerted by Voltaire, who commenced his splendid career, in 1716, with the tragedy of *Œdipus*. Louis had an aversion to him, but the marchioness induced him to appoint Voltaire his historiographer and groom of the chambers. Meanwhile, the preference visibly manifested by the court towards the poet Crebillon, inspired the author of the *Henriade* with a disgust at residing in Paris. Simultaneously with him, the immortal Montesquieu awoke the powers of reflection and of wit in the nation. His *Lettres Persannes* (1721) kindled the spirit of public criticism, and his work *Sur les Causes de la Grandeur et de la Décadence des Romains* (1734), like his *Esprit des Lois* (1734), became a classic manual for the study of politics. About this time, the interest universally felt in scientific subjects, induced cardinal Fleury and count Maurepas to persuade the king to ascertain the truth of Newton's opinion respecting the form of the earth by the measurement of a degree in a high northern latitude and under the equator, which was undertaken in 1735 and 1736, and to patronize Cassini's map of France. After 1749, J. J. Rousseau, Diderot, D'Alembert, Duclos, Condillac and Helvetius are found in the ranks of the great writers of France. The greatest agitation in public opinion was caused by the *Dictionnaire Encyclopédique* of Diderot and D'Alembert, against which the clergy, particularly the Jesuits, and the ministers, rose *en* *masse*. No less attention was excited by the work of Helvetius, *De l'Esprit*. Even the ladies took a very active part in the contest of philosophy. *Bureaux d'esprit* were formed, and from the philosophical circles at the houses of the baron of Holbach and Helvetius, there proceeded several works in support of materialism and atheism, especially from 1758 to 1770. The most famous of them is the *Système de la Nature*, of which the baron of Holbach is regarded as the author. Religion was shamelessly assailed by La Mettrie, D'Argens, the abbé de Prades, who, banished from France, sought refuge with Frederic II, but whose opinions found reception in France. Condemnation by the *Sorbonne* only excited opposition, and the boldness of the age loved to defend rash and splendid errors, if they afforded opportunity for the exhibition of acuteness. No work was more destructive of public morals than Voltaire's *Pucelle*—a talented poem, which the licentious spirit of the times of the regency alone could have inspired. But better men, such as Turgot and Malesherbes, labored, not without the approbation of the better part of the public, to counteract this pestilence, and saved the honor of sound reason. Such a production is Duclos's *Considérations sur les Moeurs*, of which Louis XV himself said, "It is the work of a man of honor." Thomas, Marmontel and Laharpe remonstrated loudly against atheism. Voltaire's wit was particularly directed against the Christian religion, after the duke de Choiseul, in order to have all the voices against the Jesuits for himself, undertook the protection of the philosophers and of the author of the *Dictionnaire Philosophique* (Voltaire). Rousseau roused the most violent anger of the antiphilosophers, by his *Emilie*. Jesuits and Jansenists united against him, and, notwithstanding the general admiration which he received, he was obliged to leave France. Such was the revolutionary spirit of the age of Louis XV. The contempt for the court and royalty produced by his reign, the exhaustion of the state caused by his extravagance, the rise of a critical and liberal spirit, and the corruption of state and church, gave birth to the revolution, and the debased state of the public morals, poisoned by the example of the court, stained it with hideous excesses.

LOUIS XVI, who was destined to ascend the throne of France on the eve of a great political convulsion, and to atone with his life for the faults and follies of his predecessors, was the grandson of Louis XV, and the second son of the dauphin, by his second wife, Maria Josephine, daughter of Frederic Augustus, king of Poland and elector of Saxony. Louis was born Aug. 22, 1754, and, in 1770, married Marie Antoinette of Austria. The countess Marsan, governess of the royal family, had a large share in his education, and even after he became king, Louis listened to her representations, of which the abbé Georgel relates a remarkable instance in his memoirs. With the best intentions, but entirely inexperienced in matters of government, this unfortunate prince ascended the throne in 1774, at the age of hardly 20 years. He modestly declined the title of *le Desiré*, given him by the nation, which he excused from the tax usual on the occasion. After the death of the Dauphin, in 1765, his grandfather had intentionally kept him from acquiring the knowledge connected with his destination; and the countess Du Barry sought to revenge herself for the contempt exhibited towards her by the serious, strictly moral prince, who dearly loved his wife, whom she hated, by making him ridiculous in the eyes of the king. The ministers, also, secretly spread the opinion that the prince was severe, and far removed from the indulgent kindness of his grandfather. He was retiring, silent and reserved, and did not dare to express his benevolent feelings. His reserve passed for distrust. He felt himself a stranger at a court where he was surrounded by vice under a thousand glittering forms. As he heeded not flattery, he was indifferent to the courtiers. The duke Choiseul therefore said, that, on the most desirable throne of the world, he was the only king who not only had no flatterers, but who never experienced the least justice from the world. In his countenance, which was not destitute of dignity, were delineated the prominent features of his character—integrity, indecision and weakness. He was injured, however, by a certain stiffness of demeanor, repulsive to the communications of friendship. His manners had nothing of the grace possessed by almost all the princes of the blood. In confidential intercourse alone, he frequently expressed himself sensibly and ingeniously, but blushed if his observations were repeated. Facility of comprehension, industry, and an extraordinary memory, made him successful in his studies; but, unhappily, they had no immediate relation to the duties and knowledge of a prince. He employed himself too assiduously in unimportant particulars. Thus he printed, when dauphin, in 1766, 35 copies of *Maximes morales et politiques, tirées de Télémaque, imprimées par Louis-Auguste, Dauphin. Versailles, de l'imprimerie de Monseigneur le Dauphin.* He had himself collected these maxims from Fénélon's work. He was familiar with geographical and chronological details; but the practical lessons which kings should derive from history, were unknown to him, although, while dauphin, he had read several good historical works. A translation, by him, of some parts of Gibbon's History, appeared under the name of Le Clerc de Sept Chênes, his reader. Upright, pious and indulgent, he was philanthropically disposed, both towards his nation and towards individuals. The virtues of his father, the quiet, domestic life of his mother, had deeply impressed upon him a moral, religious feeling. But his example was destined to show how insufficient, on a throne, are the virtues of a private man. He chose count Maurepas his minister of state, a man of talent and experience, but of little solidity of character, and desirous of shining in epigrams. In the room of the infamous abbé Terrai, he committed the financial department to the enlightened, able and upright Turgot, who resolved to remedy the abuses of the state by thorough reforms on strict philosophical, and, in some degree, physiocratical principles, and looked upon the privileged orders as the sources of all evil. But the friends of ancient abuses, the high nobility, the court, and the clergy, immediately formed a combination against him. When the parliaments were restored, by the influence of Maurepas, against the judgment of Turgot, the contest of opinion, between old and new views, more than ever embarrassed the government. The count of Vergennes was at the head of foreign affairs; count Muy was minister of war; and Sartine, of the marine. The new theories, which Turgot proposed in the council of state, had, indeed, the approbation of the philosophers: even the talented men and women, whom madame Helvetius, madame Geoffrin, mlle. Espinasse, the princess of Beauveau, and the duchess D'Anville, collected around them, took a lively interest in Turgot's liberal plans, which were loudly praised by Joseph II and Leopold; but his opponents found a support for their resistance in the old parliaments. The most oppressive feudal services, arbitrary exactions, slavery in the mountains of Jura, and the rack, were abolished, and many useful regulations established; but Turgot could not overcome the king's dread of an open struggle with the clergy, the nobility and parliament. These bodies united against the minister, and the people, which was on his side, could not, without representatives, afford any assistance against such a league. The foes of the minister stirred up the populace, and, on occasion of an edict declaring the corn-trade free, scenes occurred resembling those which subsequently marked the revolution. The timid and inexperienced Louis believed himself hated by the nation, and was indulgent towards the seditious; finally, by the advice of Turgot and Muy, he acted with vigor, and the disturbances, called, in Paris, *la guerre des farines*, were quieted after the amnesty of May 17, 1775. The coronation of the king, 11th June, 1775, was followed by the appointment of the virtuous Malesherbes as minister. He was the friend of Turgot. Their united influence might, perhaps, have done much towards reforming the old abuses, but, unhappily, the new minister of war, the count of St. Germain, was too violent in his innovations. The corps that were disbanded or diminished, and the offended military nobility, loudly expressed their dissatisfaction at the system of innovation, which was disliked, moreover, by the higher classes. "The state will perish," was the general cry, and the parliament refused to register five edicts of the king. Louis resolved, indeed, to maintain his authority, by a *lit de justice*, March 12, 1776; but the queen, a princess who was equally superior to her husband in vivacity of understanding and in wit, and loved splendor and pleasure, supported the opposition together with Maurepas, who was Turgot's secret enemy. Her the king could not resist. He hesitated: the deficit produced by the payment of debts and the expenses of the coronation, in 1775, inspired him with distrust of Turgot's philosophical views. Malesherbes gave in his resignation. Turgot was obliged to follow his example. The privileged party was victorious, but the hatred of the third estate, and the desire of all enlightened and well-disposed persons for a thorough reform, was increased. They did not wish to overthrow the whole system, until the North American revolution threw a firebrand into this inflammable mass. The day on which Louis concluded the treaty with the U. States, Feb. 6, 1778, decided his fate; for the war to which it gave rise, from 1778 to 1782, and which cost France, according to Audouin, 1,400,000,000 livres, accustomed the nation and army to republican ideas, and produced a cureless deficit; this, a meeting of the states-general; and this, the fall of the monarch and monarchy. Louis himself was averse to engaging in this war; but he was outvoted in the council of state, the ministers hoping to establish French commerce on the overthrow of the English. After Turgot's removal, the extravagance of the court increased: while Louis refused himself any great expenditures he yielded too easily to the tastes of the queen and the princes of the blood. Luxury and splendor made the expenses of the court very great: they played high; they built; they exhibited races; they gratified every whim; and Louis's dissatisfaction, which often withdrew him from these entertainments, was regarded as the indication of an ordinary mind. The regularity of his manner of life, in which study and domestic pleasures were intermingled with business, made no impression on the gay spendthrifts. Louis did not possess the art of inspiring the court and princes with respect. He paid the debts of count Artois. The queen, also, gave herself up to her love of gayety. Taste and love of the arts, clothed in all the humors of the fashion, reigned in the festivals of Versailles and Petit Trianon. Maurepas either did not see whither all this must lead, or, with his characteristic levity, yielded to necessity. Pleasure was his element. He remained the directing minister till his death, Nov. 21, 1781, sharing the confidence of the king with the talented queen, and with every one who could deceive the monarch under the appearance of zeal for the common welfare. The changes in the ministry of the finances, which was committed, in turn, to Clugny, Taboureau, Necker, Joly de Fleury, and D'Ormesson, increased the confusion. The existence of great abuses was notorious; but the extirpation of their deep-rooted causes was impossible. The dismissal of Necker, who had become an object of great dislike by his vain *compte rendu*, was considered as a public misfortune by the third estate, whose favor Necker exerted himself to acquire. Thus, long before the revolution, a real anarchy prevailed in public opinion, which penetrated even to the council of state. After the peace of Versailles, in 1783, which brought some advantages,—not, however, sufficient to repay the expense incurred,—the frivolous Calonne, liberal in promises, few of which were redeemed, was appointed minister of finance. In foreign affairs, for example, in the dispute about the Scheldt, Vergennes maintained, though not without sacrifice of money, the honor of the French crown; but the commercial treaty of 1786, with England, was deemed the greatest error of his administration, although it was a consequence of the peace of Versailles. He was also blamed for having rejected the closer connexion proffered by Joseph II, and for thus causing the approximation of Austria to Russia. The king himself betrayed weakness in dismissing the minister before the accomplishment of his plans, which he had at first approved. It is said that he sometimes spent his leisure hours in the labors of a blacksmith, and this led him to the use of strong liquors. Drinking and working at the furnace had heated his blood, his understanding was weakened, and, subsequently, his natural indolence, with his increasing corpulence, destroyed his mental activity, and produced a phlegmatic indifference. Yet it is known that Louis took pleasure in literary occupations, and engaged with fondness in public enterprises. He framed, with much sagacity, the plan and instructions for Lapérouse's voyage round the world, in 1786. Several passages in those instructions express, in a touching manner, the benevolent feelings of this artless prince. He often lamented Lapérouse's unhappy fate, with the words, "I see very well that I am not fortunate." His kindness of disposition made him particularly interested for the poorer clergy. He followed, however, the maxim of Louis XV, not to give bishoprics, or rich benefices, to any but nobles. He drew a line of division, equally unjust, and far more pernicious, with respect to the army, in which military rank was confined exclusively to the nobility. The third estate could not speak out; so much the more bitterly and violently did the populace complain of the court and higher classes, when, in consequence of the infamous affair of the necklace, the process against the cardinal prince of Rohan was commenced in 1785. (See Georgel's *Mémoires*, vol. ii.) The libel of the branded countess De la Mothe and her husband, disseminated the grossest calumnies against the innocent queen, which were but too easily credited by the people. By this means, the throne was disgraced in public opinion; and the duke of Orleans, the implacable enemy of the queen, was accused of using the infamous La Mothe as the tool of his hatred. In this fermentation of public sentiment, Calonne persuaded the king to convene the notables, in order to find some resources for the exhausted treasury. Unhappily, the count of Vergennes died, Feb. 13, 1787, and, on the 22d February, the king opened the assembly with a speech, which was not favorably received. The deficit, which the comptroller-general had stated at 112,000,000, but which was estimated at more than 140,000,000, rendered Calonne's plans suspected. An opposition was formed, and Calonne received his dismissal. Parliament refused the imposition of two new taxes, which would have been burdensome to the large landed proprietors, and demanded the convocation of the estates. The nation heard the proposition with exultation; the court trembled. Louis ventured on a *lit de justice;* but the parliament declared it void. According to Lacretelle, a calembourg was the spark which kindled the mine that overthrew the throne, while the mass of the nation, excited by opinions and passions, exasperated by hatred and contempt, reduced to desperation by the sight of multiplied wants, and inspired, by the example of America, with the love of freedom, became incapable of restraint or moderation. The king banished the parliament to Troyes. Thus war was declared between the throne and nation. The government, moreover, had acted without dignity in regard to the contest of the Dutch patriots with the hereditary stadtholder, in 1787, and thus entirely lost the respect of the people. The king himself manifested a good nature, bordering on weakness, to his nearest connexions, who, like the duke De Coigny, consented only with the greatest reluctance to the restrictions of the royal household. A negotiation was finally commenced with the parliament; it returned; the measures, on both sides, became more violent; the rebellion broke out in Brittany, in June, 1788; the nobility and the officers of the regiment Vassigny, then, for the first time, dared to carry arms against the commands of the king. Even the clergy loudly demanded the convocation of the estates. (Respecting the pernicious artifices of the royalists, in general, much information is contained in Besenval's and Molleville's Memoirs.) The weak prime minister, Brienne (see *Loménie*), opposed in all his projects, resigned, and Necker entered the council, in 1788, as minister of finances. Louis convened a second time the notables, to settle the form of the estates and the manner of voting. May 5, 1789, the states-general met. Amidst the conflicts of the privileged orders, and the new opinions, the king remained gentle and timid, deserted and alone. "God forbid," said he to the nobility, who would not unite with the third estate, "that a single man should perish for my sake." His sole object, which he pursued with earnestness of purpose, was the common weal; but around him every thing vacillated; how could he show firmness? The democrats hated him as a king; the emigrants and the aristocrats, who remained in France, deemed him incapable of governing. He himself made the greatest sacrifices to the state, even such as endangered his personal security, for instance, the disbanding of his body guard. He could not, nevertheless, escape the most envenomed calumny. Among other things, it was reported that, by a secret act, he had protested against every thing, which had been extorted from him in limitation of the ancient royal prerogatives. Meanwhile, even amid the grossest calumnies, a flattering word was sometimes heard. When Louis XVI attended the national assembly (Feb. 4, 1790), the national guard of Versailles caused a gold medal to be struck, on which was represented a pelican feeding its young with its blood. The device was, *Français, sous cet emblème adorez votre roi!* The 12th, 13th and 14th of July, 1789; the night of August 4; the horrors of the 5th and 6th of October; the flight of the king, June 21, 1791, intercepted at Varennes, 60 leagues from Paris, when Louis, from his hesitation to use force, prevented the success of Bouillé's plan for his escape, and, at the same time, excited public opinion against himself by the declaration which he left behind (see the statement of M. de Valory, in the *Minerve*, November, 1815, and the *Memoirs* of Bouillé and Choiseul); the acceptance of the constitution of Sept. 14, 1791, which declared his person inviolable; the attack of the populace of Paris on the royal palace, June 20, 1792, when Louis, with equal firmness and dignity, rejected the demands of the insurgents, and, on the 22d, openly declared that violence would never induce him to consent to what he considered hurtful to the general welfare; the catastrophe of August 10, to which Louis submitted, because he had not the courage to overcome the danger; his arrest in the national assembly, to which he had fled for refuge; finally, his trial before the convention, where he replied to the charges with dignity and presence of mind;—these were the most important events in the history of the king. (See *France, from*

1789 *to* 1814.) He exhibited, under these circumstances, the courage of innocence, and a strength of mind before unknown in him. As a prisoner of the municipality of Paris, in the Temple, he was denied, till shortly before his death, pen, ink and paper. (See the *Journal de ce qui s'est passé à la Tour du Temple pendant la Captivité de Louis XVI*, by Cléry, the faithful servant of the king; and a work on the same subject by Hue, who followed Louis to the Temple.) His usual employment was instructing his son and reading. He preferred Latin authors to the French. He read, almost every day, portions of Tacitus, Livy, Seneca, Horace and Terence; in his native language, chiefly travels. On the evening before his death, he found that he had read 157 volumes, in the five months and seven days of his imprisonment. He evinced himself a loving husband and an affectionate father. In his private capacity, no candid man can withhold from him his esteem. Jan. 15, 1793, Louis was declared guilty of a conspiracy against the freedom of the nation, and of an attack on the general security, by a vote of 690 out of 719; on the 17th January, he was condemned to death, the law requiring for condemnation two thirds of the votes, having been repealed on the 16th, during the trial, and a bare majority declared sufficient. After repeated countings, it was found that 366 votes were given for death, making, consequently, a majority of 5 in 727. Jan. 21, 1793, he was guillotined, in front of his former palace, in his 39th year, the appeal to the nation, proposed by his advocates, Malesherbes, Tronchet and Desèze, having been rejected, on the 19th, by 380 votes out of 690. He died with the courage of Christian faith. His last words, which asserted his innocence and forgave his judges, were drowned in the rolling of drums and in the cry *Vive la république!*—See the Memoirs of the Abbé Edgeworth (the priest who prepared him for death), containing his narrative of the last hours of Louis XVI (London, 1816). —Even in his youth, Louis manifested a sensibility unusual in the higher classes. He needed not the sight of misery; when he heard it spoken of, he shed tears, and hastened to relieve it. Unknown, he alleviated misfortune in the cottage and garret. When he was first saluted at court, as dauphin, after the death of his father, the duke of Burgundy, he could not restrain his tears. Still greater was his grief at the death of Louis XV. "O God," he cried, "shall I have the misfortune to be king!" His favorite maxim was, "Kings exist only to make nations happy by their government, and virtuous by their example." The establishment of the *mont de piété*, the *caisse d'escompte*, the abolition of feudal services, of torture, and of slavery in the Jura, are only some of his benevolent measures. He caused the state prisons to be examined, and liberated the unhappy victims of despotism. Louis declared that he would never sign, beforehand, a *lettre de cachet*. His great object was the happiness and love of his people. On his journey to Cherbourg, in 1786, where he had undertaken the construction of the celebrated harbor, in 1784, to which he had appropriated 37,000,000 livres, he received the most unequivocal marks of the love of the French. He wrote, at the time, to the queen, "The love of my people has touched me to the heart; think you not that I am the happiest king on earth?" And in his will of Dec. 25, 1792, he says, "I forgive, from my whole heart, those who have conducted towards me as enemies, without my giving them the least cause, and I pray God to forgive them. And I exhort my son, if he should ever have the misfortune to reign, to forget all hatred and all enmity, and especially my misfortunes and sufferings. I recommend to him always to consider that it is the duty of man to devote himself entirely to the happiness of his fellow men; that he will promote the happiness of his subjects only when he governs according to the laws; and that the king can make the laws respected, and attain his object, only when he possesses the necessary authority." In the same spirit he wrote to Monsieur (Louis XVIII): "I submit to Providence and necessity, in laying my innocent head on the scaffold. By my death, the burden of the royal dignity devolves upon my son. Be his father, and rule the state so as to transmit it to him tranquil and prosperous. My desire is, that you assume the title of a regent of the kingdom; my brother, Charles Louis, will take that of lieutenant-general. But less by the force of arms than by the assurance of a wise freedom and good laws, restore to my son his dominions, usurped by rebels. Your brother requests it of you, and your king commands it. Given in the tower of the Temple, Jan. 20, 1793." Louis was buried in the Magdalen churchyard, Paris, between the graves of those who were crushed to death, in the crowd, at the Louvre, on the anniversary of his marriage, in 1774, and the graves of the Swiss, who fell on the 10th August, 1792, in his defence. Desodoard's work on the history of this prince, is of little value. J. J. Regnault's *Siècle de Louis XVI* is not impartial. The *Vie privée et politique de Louis XVI, avec un Précis historique sur Marie Antoinette, Mme. Elizabeth*, etc., *par M. A.*, contains little that is not to be found elsewhere. More important are the abbé Georgel's *Mémoires pour servir à l'Histoire des Événements depuis* 1760, *jusqu'en* 1806—1810, published by the nephew of the author, after his death (Paris, 1817, 2 vols.), and Mad. Campan's Memoirs of the private Life of the Queen, with Anecdotes of the Times of Louis XIV, XV, XVI (Paris, 1822, 3 vols.); and the abbé de Montgaillard's *Histoire de France depuis la Fin du Règne de Louis XV*, &c. (Paris, 1827, 4 vols., to 1793.)

LOUIS XVII, second son of Louis XVI and of Marie Antoinette, was born at Versailles, March 27, 1785, and, in 1789, after the death of his elder brother, received the title of dauphin. He was four years old, when his mother presented him to the seditious populace of Paris, and carried him to the capital on the terrible 5th and 6th October. Confined with his parents and his aunt Elizabeth (q. v.), in the Temple, his innocent gayety and affectionate disposition were the chief solace of the unhappy prisoners. On the death of Louis XVI, he was proclaimed king by the royalists, and his uncle (since Louis XVIII) assumed the title of regent. He was soon after separated from his mother, sister and aunt, and delivered (1793) to a shoemaker by the name of Simon, a fierce Jacobin, of a gross and ferocious disposition, who, with his wife, treated the young Capet with the most unfeeling barbarity. Reproaches, blows, scanty food, the damps and filth of a dungeon, and a sleep broken by menaces and abuse, were the lot of the innocent child. He was even compelled to drink strong liquors, and join in the obscene songs, and repeat the atrocious language of his tormentor. He survived this treatment only till June 8, 1795, when he died, at the age of 10 years and two months. He was buried in the common grave in the cemetery of Ste. Marguerite, where his remains could not be distinguished in 1815. Several impostors have appeared, pretending to be the prince; among them, Hervagant, a tailor's son, in 1802 (died 1812 in prison), and Bruneau, a shoemaker, who, in 1818, was condemned to seven years' imprisonment. (See Eckard's *Mémoires sur Louis XVII.*)

LOUIS XVIII (Stanislaus Xavier), *le Désiré*, formerly count of Provence, third son of the dauphin (the son of Louis XV), born November 17, 1755, married, May 14, 1771, the daughter of king Victor-Amadeus III of Sardinia, Mary Josephine Louisa, who died in 1810. At the accession of his brother, Louis XVI, in 1774, he received the title of Monsieur, and, after his death, became regent of France. After the death of his nephew, June 8, 1795, from which time he reckoned his reign, he took the name of Louis XVIII, king of France and of Navarre. But, with the exception of England, the states of Europe did not acknowledge him as king of France before the taking of Paris, March 31, 1814. His brother, Monsieur, count of Artois, as lieutenant-general, became the head of the provisional government in Paris, April 13. Immediately after, Louis XVIII began his reign, by his manifesto from St. Ouen, May 2, 1814. During the reign of his brother, he had taken but little interest in the intrigues and the pleasures of the court, and had principally occupied himself with books; his wife had followed a different course. It is said that, in his youth, Louis had much taste for poetry, and was the author of several tolerably good poems. He translated also some volumes of Gibbon's History, and applied himself to the study of the Roman poets and philosophers. The history of his emigration, he has related in an agreeable manner, in a work which appeared at Paris, in 1823 (*Rélation d'un Voyage à Bruxelles et à Coblence*, 1791); dedicated, *a Antoine Louis François d'Avaray, son libérateur, Louis Stanislaus Xavier de France, plein de Reconnaissance, Salut.* In the first assembly of the notables, in 1787, he was at the head of the first of the seven *bureaus*, and appeared on the side of the opposition, against Calonne, *controleur-général des finances*; at least, the latter was most violently attacked by the *bureau*, under the presidency of the count of Provence. The people, therefore, looked upon him with favor, and saluted him with cries of joy, when he received from the king orders to compel the registration of some edicts, by the *cour des comptes*. His brother, the count of Artois (Charles X), on the other hand, who did not belong to the opposition, was loaded with reproaches. At the second assembly of the notables, November 9, 1788, he alone declared himself for the double representation of the third estate. During the revolution, it was as impossible for him as for the king to escape the attacks of calumny. After the destruction of the Bastile, the king, accompanied by his two brothers, entered the hall of the national assembly, July 15, and declared that he counted upon the love and the fidelity of his subjects, and had, therefore, given orders to the troops to withdraw from Paris and Versailles. But the people of Paris had already proscribed the count of Artois, who, therefore, left the kingdom, July 16, with his two sons. He was followed by the princes of Condé and Conti, and the dukes of Bourbon, Enghien and Luxembourg. Monsieur remained. As the people were clamorous for the execution of the marquis of Favras, who had sought means for the escape of the king, and had attempted a counter revolution, in which the count of Provence had taken part, the latter went to the *hôtel de ville*, in Paris, the day after the arrest of the marquis (December 26, 1789), to defend himself in person. He asserted that the only connexion he had ever had with the marquis, was, that he had bargained with him for 2,000,000 of livres, wherewith to pay his debts. The people believed that this money was to have been appropriated to the levying of troops. The marquis was condemned to death, by the *châtelet*, and hanged February 19. At last, the violence of the factions in Paris induced the king, June 21, 1791, to attempt to escape to the frontiers of the kingdom. Louis took the road to Montmedy, and the count of Provence that of Mons. The former was arrested at Varennes; the latter reached Brussels in safety. From Coblentz, he protested against the decrees of the national assembly, and the restraints put upon the freedom of the king. When the king, October 30 and 31, 1791, called upon him to return, the princes issued a declaration, that they regarded the constitution as the work of rebels, and that the king held the throne merely in trust, and was obliged to leave it to his posterity as he had received it. January 16, 1792, the legislative assembly, therefore, declared the count of Provence to have forfeited his right to the succession. The two brothers of the king, at the head of 6000 cavalry, now joined the Prussian army. After the death of Louis XVI, Monsieur, who had previously been residing at Hamm, in Westphalia, lived at Verona, under the name of count of Lille. In 1795, he was here proclaimed, by the emigrants, king of France and of Navarre. The calamities which afterwards befell him he bore with dignity and resolution. In the following year, when the Venetian senate, through fear of Bonaparte, obliged him to leave Verona, he declared himself ready to do so, but required that the names of six princes of his house should first be struck from the golden book of the republic, and that the armor, which his ancestor, Henry IV, had given it, should be restored. He now led a wandering life, supported by foreign courts, especially the English, and by some friends of the house of Bourbon. He first went to the army of Condé, on the Rhine, to serve as a volunteer, but was afterwards obliged to leave it, and went to Dillingen, in Suabia. July 19, 1796, at 10 o'clock in the evening, as he was standing at a window, with the dukes of Grammont and Fleury, a musket ball was fired at him, which grazed his temple. "Never mind it," said he immediately to the alarmed dukes; "a blow on the head, that does not bring a man down, is nothing." When the count D'Avaray exclaimed, "If the ball had struck a line deeper—" Louis replied, "then the king of France would have been called Charles X." From thence he went to Blankenburg, a small town in the Hartz, where he lived under the protection of the duke of Brunswick, and carried on a correspondence with his friends in France, especially with Pichegru. After the peace of 1797, he went to Mittau, where he celebrated the marriage of the duke of Angouleme with the daughter of Louis XVI. When Paul I refused to permit him to reside any longer in his states, the Prussian government allowed him to remain in Warsaw. While here, Bonaparte, in 1803, attempted to induce him to renounce his claims to the throne. But he answered to the messenger of the first consul, February 28, "I do not confound M. Bonaparte with his predecessors; I esteem his valor and his military talents, and thank him for all the good he has done my people. But, faithful to the rank in which I was born, I shall never give up my rights. Though in chains, I shall still esteem myself the descendant of St. Louis. As successor of Francis the First, I will at least say like him—'We have lost all except our honor.'" April 23, the princes concurred in the answer of the king. In 1805, Louis, with the consent of the emperor Alexander, returned to Mittau; but the peace of Tilsit obliged him to leave the continent, and he, at last, took refuge in England, in 1807. His brother, the count of Artois—since 1795, Monsieur—had lived in Great Britain, principally in

Edinburgh, from 1796. Louis had taken several steps to procure the restoration of his family in France. With this view, he had written to Pichegru, and given him full powers. His letter of May 24, 1796, is a proof of the great confidence which he had in this "brave, disinterested and modest" general, to whom, as he then thought, "was reserved the glory of restoring the French monarchy." When the army of the prince of Condé, in which, since 1798, the duke of Berri had commanded a cavalry regiment of nobles, first in Russian, and afterwards in English pay, had been by circumstances gradually broken up, and had obtained from the Russian emperor the liberty of residing in Volhynia, the princes of the Bourbon family ceased to take an active part in the operations of the war. Louis XVIII, until the conclusion of the great struggle, remained in England, where he lived at Hartwell, in Buckinghamshire, in a very simple manner, occupying himself partly with the Roman classics, especially Horace, of whom he translated much, and retained in memory a large part, and partly with political studies. That he resembled in character his unfortunate brother, we know from several examples of his kind feelings. Soon after the disastrous expedition of the French to Russia, he wrote to the emperor Alexander a letter, recommending the French prisoners of war, as his children, to the magnanimity of that monarch, and he refused to join in the rejoicings in England, for he could not but mourn the death of so many Frenchmen. When the allies invaded France, the count of Artois went to Basle, February 2, 1814. His eldest son, the duke of Angoulême, had gone to join Wellington. They published a proclamation from Louis XVIII to the French, dated Hartwell-house, 1st February, 1814, which induced a party, first in Bordeaux, and afterwards in Paris, to declare for the Bourbons. The king promised entire oblivion of the past, the support of the administrative and judicial authorities, the preservation of the new code, with the exception of those laws which interfered with religious doctrines; security to the new proprietors against legal processes; to the army, all its rights, titles and pay; to the senate, the support of its political rights; the abolition of the conscription; and, for himself and his family, every sacrifice which could contribute to the tranquillity of France. Soon after the dissolution of the congress of Chatillon, the count of Artois entered Nancy, March 19. But the duke of Angoulême first saw the lilies of the Bourbons planted on French ground at Bordeaux, March 12. The restoration of the Bourbons was a subject first brought strongly home to the French, at the time of the entrance of the allies into Paris, by the declaration of the emperor Alexander, March 31, that they would treat neither with Napoleon nor with any member of his family. Talleyrand, Jaucourt, the duke of Dalberg, Louis and De Pradt contributed not a little to this in an interview with Alexander, the king of Prussia, Schwartzenberg, Nesselrode, Pozzo di Borgo, and Liechtenstein, March 31, by the assurance that the restoration of the Bourbons was the wish of a large majority of the nation. (See De Pradt's *Récit historique sur la Restauration de la Royauté en France, le* 31 *Mars*, 1814.) The senate now appointed a provisional government under the presidency of Talleyrand, which, April 3, gave the authority of a law to the resolve of the senate of April 2, for the deposition of Napoleon, and published in the *Moniteur* the project of the constitution of April 5, according to which the Bourbons were to be recalled to the throne. A decree of April 4 also intrusted the government to the count of Artois, until the moment when Louis, called to the throne of France, should accept the constitution drawn up for the kingdom. Louis XVIII now left Hartwell, and reached London, April 20, whence the prince regent (George IV) accompanied him to Dover. From Dover, the duke of Clarence (now William IV), April 24, conducted him to Calais. With Louis landed also the duchess of Angoulême, the prince of Condé, and his son, the duke of Bourbon. Upon landing, he pressed the duchess of Angoulême to his heart, and said, "I hold again the crown of my ancestors; if it were of roses, I would place it on your head; as it is of thorns, it is for me to wear it." The memory of his landing upon French ground, is perpetuated by a Doric column of marble erected at Calais, and the trace of his first footstep is carefully preserved in brass. The king remained some days in Compiègne, where, as at St. Ouen, he received deputations from the authorities at Paris. He was welcomed at St. Ouen by the emperor of Austria, and at Compiègne by the emperor of Russia. From St. Ouen, May 2, he issued that remarkable proclamation, by which he accepted the most essential part of the constitution of the senate (April 5), in 12 articles, but submitted the whole, as being too hastily drawn up, to the revision of a committee of the senate and legislative body. May 3, Louis made his entrance into Paris. The hopes of all now rested upon him. In compliance with the will of his unhappy brother, who had commanded forgiveness, he solemnly declared "that all examinations into opinions and votes, until the time of the restoration, are forbidden. The same oblivion is made the duty of the courts of justice and of the citizens." He formed his ministry of members of the former provisional government, and of zealous royalists, such as the chancellor D'Ambray. One of his first ordinances related to the continuance of the oppressive taxes (*droits réunis*), which the state of the kingdom rendered necessary. It had been promised that they should be abolished, but it was only possible to ameliorate the mode of their collection. He afterwards concluded peace with Austria, Russia, England, Prussia, Spain, Portugal and Sweden, at Paris, May 30, 1814, and caused a constitution to be drawn up. Although his ministry too little understood the spirit of public opinion, yet, by prudence and firmness, it was able to restrain the disaffected. It inclined to the old prejudices, and fulfilled none of the just expectations of the nation, with regard to the freedom of the press, and the prevalence of liberal ideas. The old royalists, as well as the partisans of the empire, had been deceived in the dreams of their pride and their covetousness. The former thirsted for revenge, and aspired to regain their lost advantages. The latter, including the soldiers of Napoleon, 100,000 of whom had returned from captivity, were indignant at the disgrace of the French arms. After the proclamation of peace, Louis caused his chancellor, D'Ambray, in his presence, to lay before the legislative body and the senators the constitution of the kingdom (*la charte constitutionnelle*), June 4, it having been already approved by nine senators and nine deputies, after it had been drawn up by the three ministers D'Ambray, Montesquiou and Ferrand. It was unanimously accepted as the will of the king, and recorded. (See *France*, since 1814.) The chamber of deputies, which was established by this instrument, requested the king to take the surname of "the desired," *Louis le Désiré*. When the chamber was occupied with fixing the civil list, Louis answered the deputies, "Let them attend to the state, and neglect me." The king appointed from the new and old nobility, from the senators and marshals, 151 members of the chamber of peers; 53 of the former senators, among whom were 23 foreigners, were not appointed peers by the king; others were excluded, as Caulaincourt, Fesch, Fouché, Grégoire, Roderer, Sièyes. They retained, however, their property, and the widows of those who had died received pensions. It was not to be expected, that men who had voted for the death of Louis XVI could now be peers of France. The king gave his full confidence to his minister, M. de Blacas, and the chancellor D'Ambray. The latter and the five secretaries of state, (the minister of foreign affairs—Talleyrand—of the interior, of war, of the finances, of the navy), and the directors-general of the police and the post-office, together with the state counsellors and the *maîtres des requêtes*, formed the king's council, to which were admitted distinguished men of the old and new nobility, and the former state officers, together with some whose only claim was, that they had shared the sufferings of Louis. The new relations with foreign powers were regulated by Talleyrand with his usual ability, and not without dignity and a proper regard to the pride of the nation. His diplomacy now professed great magnanimity and respect for the rights of the people. On the other hand, the minister of the interior, abbé Montesquiou, did not succeed in gaining the public opinion in favor of the Bourbons. Still less did the minister of war, general count Dupont, succeed in gaining the favor of the army, which hated him. His successor, Soult, contributed much, by his severe measures, to excite the anger of the army against the king. The personal mildness of Louis XVIII, and his love of justice, were often betrayed, in spite of the judgment which he frequently showed, into imprudent and inconsistent measures. He was accused of surrounding himself with the leaders of the Chouans, and with emigrants, and admitting them, in preference to all others, into the royal guard. The army was exasperated by the diminution of the pensions of the members of the legion of honor, and the severity which had placed so many officers upon half pay. The chamber of peers, composed mostly of the old nobility, and attached to their old prejudices, often thwarted the better views of the chamber of deputies. The chancellor D'Ambray showed great weakness in favoring the privileged classes, and was careless in the duties of his office. The count Blacas, little acquainted with France, was hated by all parties. The censorship of the ministers limited the freedom of the press, while libels were promulgated against men who had displeased the government. Merely in consequence of a political reaction, thirty honorable names were struck from the list of members of the national institute. Hired or fanatical writers maintained that the sale of the national domains was invalid, and that the crimes of the revolution were not to be pardoned. The restoration of tithes and the old privileges was openly talked of in the country. The ordinance of Blacas with regard to the Sunday police excited so much ill feeling in Paris, that it was found necessary to repeal it. The prohibition of masked balls during Lent, caused still greater dissatisfaction; and the obstinacy of the curate of St. Roch, who opposed the burial of a celebrated actress in consecrated ground, exasperated the people against the priests. In short, every thing appeared to confirm the warning of Lally-Tollendal:—"But one more act of madness was wanting to France; and that we now have; we see the throne of the king shaken by his friends." Against the *pure*, or, as they were afterwards called, *ultra* royalists, were united the republicans and the military and constitutional royalists. In the midst of all this Napoleon returned from Elba. To understand the events of March, 1815, it is necessary to call to mind what the majority of the nation expected of Louis XVIII. (See Comte and Dunoyer's *Censeur ou Examen des Actes et des Ouvrages qui tendent à détruire ou à consolider la Constitution de l'État;* and the *Examen rapide du Gouvernement des Bourbons en France, depuis le Mois d'Avril,* 1814, *jusqu'au Mois de Mars*, 1815.) The nation wished, 1. to have its political liberties secured, or the right of being represented by deputies, chosen by the people; 2. the personal liberties of the individuals, or security from prosecutions for imaginary crimes, or contrary to the legal forms; 3. the equality of citizens in the eye of the law, and the rights of all to obtain any civil and military dignity, by merit and talents; 4. the abolition of feudal services; 5. the right, in criminal accusations, to be judged by a jury; 6. the independence of the judiciary upon every other power in the state; 7. the right of levying taxes by their representatives, and on all in proportion to their property; 8. the right of every individual to exercise any means of gaining a living which did not interfere with the rights of other citizens; 9. the right of every one to communicate his thoughts to his fellow citizens, by public writings, being responsible only to the law; and, 10. the right of every one to perform divine worship in his own way, without molestation. But instead of satisfying the demands of the nation, the Bourbons, it was maintained by the parties above mentioned, had sought to destroy public opinion, and had thus lost the attachment of the French. The following grievances were particularly complained of: 1. the abolition of the national colors; 2. the surrender of all the fortresses beyond the ancient frontiers of France, to the allies, by Monsieur, as lieutenant-general, April 23, 1814 (with these fortresses he had given up 13,000 cannons, and had thus caused the loss of Belgium, and of the left bank of the Rhine); 3. the royal declaration, whereby the new constitution had been imposed upon the nation by virtue of the royal pleasure and prerogative, while it ought to have been proposed to it for acceptance (from the form used for this purpose, it would follow, that every successor of the king might abrogate or alter the charter at will); 4. the stain upon the national honor, from the king's declaration that he owed his crown to the prince regent of England; 5. the exclusion of many respectable members of the senate from the chamber of peers, and the filling their places by others, who, for 20 years, had borne arms against France; 6. the neglect to abolish the *droit réunis*, and other vexatious taxes; 7. the restrictions on the freedom of the press; 8. the persecutions of the holders of the national domains, and the expressions of the minister, count Ferrand, on this subject in the chamber of deputies; 9. the libels against those who had taken part in the revolution, although these were forbidden by the constitution; 10. the exclusive appointment of the old nobility to embassies; 11. arbitrary taxes, imposed without the consent of the legislature; 12. the great influence of priests, &c. It ought to be observed, however, on the other hand, that Louis XVIII had provided for the personal security of the subject by the independence of the tribunals, and the responsibility of the ministers; though the law on the latter point had not yet gone into effect when the revolution of March began. But the ministers should have forgotten their old ideas, and ruled in a popular manner. Henry IV had, when he ascended the throne, changed his religion, and thus obtained the love of his people. Napoleon at Elba was fully informed of the troubles in France, and the divisions at the congress. His appearance in France, March 1, 1815, was like a thunder-bolt to the army and the nation. The state of popular feeling was entirely unknown to Louis. Those who surrounded him, as ignorant as himself, still deceived him with accounts of the devotion of the army; and of desertion among the soldiers of Napoleon. The defection of Labédoyère and Ney finally opened the eyes of the king, but it was too late. He was obliged to flee from Paris, in the night of March 20, after having dissolved the two chambers on the 19th. On the evening of March 22, he reached Lille, whence he issued several decrees, forbidding all levies and contributions for Napoleon, and disbanding the rebellious army. Twenty-four hours after, he was obliged to leave Lille, to avoid falling into the hands of his enemies, and went by Ostend to Ghent. The duke and duchess of Orleans, the old prince of Condé, the count of Artois, and the duke of Berry, hastily left Paris. The duke of Bourbon remained in Vendée, and the duke and duchess of Angoulême in the south of France. Their object was to awaken a popular sympathy in favor of the king. An army was, indeed, formed in Vendée, and the duke of Angoulême levied troops, but, deserted by a part of them, and surrounded by the generals of Napoleon, he was obliged to conclude the capitulation at Pont d'Esprit, April 8, in consequence of which he embarked, April 15, at Cette for Barcelona. The duchess of Angoulême, whose fortitude had been the subject of admiration, showed, at Bordeaux, the courage of a heroine. The city and the people were devoted to her, but the troops favored the advance of general Clauzel, and the duchess was obliged to embark for England, April 2. Besides the ministers and several officers, marshal Berthier, Victor, Marmont, and the duke of Feltre, followed the king. The number of his followers amounted at last to a thousand. While in Ghent, he issued an official paper, the *Journal Universel*, which contained several pieces by Châteaubriand. In the meanwhile, Talleyrand, at Vienna, was actively engaged in the cause of the king, and Louis was included in the league of March 25, against Napoleon. When the allies invaded France, Louis XVIII returned, and went to Cambray. He here proclaimed a general amnesty, with the exception of traitors, and promised to avoid all the faults he had committed in 1814, from ignorance of the new spirit of the nation, and to dismiss Blacas. In the meanwhile, the chambers, convoked by Napoleon, had appointed an executive commission under the presidency of Fouché, and deputies who were to negotiate with the allies upon the basis of their independent right to choose a form of government; but the allies would not consent to this. Blücher and Wellington besieged Paris, and Fouché, who had already induced Napoleon to leave France, put a stop to the shedding of blood, by the capitulation of Paris, July 3. Louis was thus again restored to the throne of France. July 7, the Prussians and English entered Paris, and on the afternoon of the 9th, Louis followed, under the protection of Wellington. The king immediately appointed his new ministry, at the head of which was Talleyrand, and in which Fouché was minister of police. The most declared partisans of Napoleon now lost their places. July 13, the former chamber of deputies was dissolved, and a new one summoned. (See *Chambre Introuvable.*) Among the most decided measures by which the king sought to support his throne, was the ordinance of July 16, disbanding the army, according to the wishes of his allies; which Macdonald effected with great prudence. To form a new army, 4000 officers were appointed, in part of those who had escaped the conscription; and according to the edict of May 20, 1818, of the half-pay officers of the army of 1815, only those were appointed who had served for 15 years or more, and, consequently all French soldiers, since 1803, were made incapable of service. Yet the constitution of 1814 had secured to all officers the preservation of their rank and their pensions. An ordinance of July 24, 1815, designated the rebels who were excluded from the amnesty. According to this, 19 generals and officers, Ney, Labédoyère, the brothers Lallemand, Erlon, Lefevre, Desnouettes, Ameilh, Drouot, Brayer, Gilly, Mouton, Duvernet, Grouchy, Clauzel, Laborde, Debelle, Bertrand, Cambronne, Lavalette and Savary, were to be arrested and brought before a court-martial. Thirty-eight others were exiled, according to a resolution of the chambers, including Soult, Carnot, Excelmans, Bassano, Vandamme, Lamarque, Lobau, Barrère, Arrighi, Regnault de St. Jean d'Angely, Real, Merlin de Douay, Hulin, the poet Arnauld, colonel Bory de St. Vincent, Mellinet and others. Twenty-nine were degraded from the peerage, as Lefebvre, Suchet, Augereau, Mortier, Cadore, Pia cenza, &c. A few exculpated themselves by proving that they had not received from Napoleon a seat in the new chambers. Of the rebels, towards whom many circumstances recommended mercy, Labédoyère was shot August 19; Ney, December 7, 1815; and Mouton Duvernet, July 26, 1816. Lavalette (q. v.) escaped from prison, December 21, 1815; Drouot and Cambronne were released; the greater number took refuge in flight; some, like Debelle, were pardoned; others, as Dejean the son, Laurence, Gamon, Alquier, Duboisdubai and Grandpré received, in 1818, permission to return. In the meanwhile, the royalists, who called themselves *rectilignes*, obtained greater influence. The princes were dissatisfied with Fouché's appointment to the ministry. At the same time, he made himself obnoxious to the allies by his reports to the king on the new state of France. Talleyrand and Fouché, though devoted to the cause of the king, were looked upon by the royalists as men who ought not to be admitted to authority in the new system of things. Thus a change in the ministry took place, September 25, 1815. Fouché was dismissed, and, in order to please Russia, the duke of Richelieu was made minister of foreign affairs in his place. Decazes became minister of police, Corvetto, of the finances, and Clarke, duke of Feltre, minister of war, &c. The ultra royalists now raised their heads. The state of things before 1789, alone appeared legitimate in their eyes. The election of the deputies was made accordingly, and many of those elected were but 25 years old, though 40 was the legal age. A change of the constitution was openly talked of. On the other hand, the partisans of the fallen government, excited by the ultras, began to form conspiracies; but for their speedy punishment prevotal courts were introduced, which, however, were abolished in 1818. Decazes discovered several conspiracies, among which, however, that under Didier alone broke out, in May, 1816, in the vicinity of Grenoble. The numerous arrests attracted attention, and several foreigners, as the English who had favored Lavalette's escape, lord Kinnaird (in his letter to lord Liverpool), and the Polish count Sierakowski, complained of the arbitrary conduct of the French police. It excited great dissatisfaction that the duke of Richelieu, as minister, in the trial of Ney, had availed himself of the extreme rigor of the law in procuring his condemnation. Among the princes, the duke of Orleans (see *Louis-Philip*) alone used a milder tone. When an address of thanks to the king, written by Châteaubriand, was read in the house of peers, the duke proposed to change the passage in which traitors were given up to the justice of the king, so as to recommend the persons there named to the mercy of the king. The censors of the press would not allow his speech to be printed; and the duke, for whom a party was already forming, though without his own consent, soon after (October, 1815) went to England. Richelieu now concluded with the allied powers the treaty of November 20, 1815 (see *France*), which embarrassed the finances of the kingdom, since, from December 1, 1815, France was bound to pay 140,000,000 yearly, toward 700,000,000, which had been the expenses of the war, with 130,000,000 for the support of the army of occupation. A violent dispute soon after arose in the chambers on the subject of the law of amnesty. The ultra royalists, January 6, 1816, proposed some changes, which extended and rendered more severe the first propositions of the king. All the relations of Napoleon were, under pain of death, banished from France; they lost the property conferred upon them, and were obliged to sell what they had bought. Those, also, who had voted for the death of the king (*régicides*), and those who, in 1815, had received offices or honors from the *usurper*, or had acknowledged the Additional Act to the constitution, were banished from the kingdom, and forfeited all their civil rights, and the titles, estates and pensions, which had been conferred on them. Of 366 who had voted for the king's death, 163, who were still living, were banished from France. Three only—Tallien, Milhaud and Richard—were allowed to remain. If violent measures were taken against the real or suspected anti-Bourbonists (among others a captain was imprisoned on suspicion, for having named his horse *Cossack*), the public authorities did but little to restrain the commotions at Nismes, and the department of Gard, where political and religious fanaticism had caused the persecution and murder of the Protestants, in 1815 and 1816. One voice only was heard in the chamber, in the cause of the Protestants—that of the noble D'Argenson; but Tréstaillons, who was universally known to be a murderer, remained unpunished. (He died in 1827.) The victory in the chambers gradually inclined to the royalists, who were called *exagéres*, or *white Jacobins*. The king, therefore, closed the session, April 29, 1816, after a law, prohibiting divorces, had been passed. Lainé, the former president of the chamber of deputies, was appointed minister of the interior, and, with Corvetto, Richelieu and Decazes, formed, in the ministry, the constitutional majority; the minister of the marine, Dubouchage, appeared to join them, so that the chancellor, D'Ambray, and the minister of war, Feltre, alone possessed the confidence of the ultras. (In September, 1817, marshal St. Cyr took the place of the latter; count Molé, a peer of France, the place of Dubouchage; and, somewhat later, Roy, the place of Corvetto.) In the midst of continual seditions in France, the majority of the ministers, supported by the influence of the Russian ambassador, Pozzo di Borgo, and of Wellington, succeeded in obtaining from the king the ordinance of September 5, 1816, by which he dissolved the chamber of deputies, and ordered that the new members should all be of the lawful age of 40. At the same time, he declared that the constitution should be subjected to no alteration. This victory of the constitutional party gave a check, for a time, to the ultra royalists, to whom Louis XVIII himself did not appear to be enough of a royalist, and silenced, for some time, their *Vive le roi, quand même—!* The organ of that party, Châteaubriand, in his work *De la Monarchie selon la Charte*, reproached the government with having taken away personal liberty and the liberty of the press. He was even bold enough to maintain, that that ordinance was contrary to the wishes of the king. The elections for the new chambers were such that the constitutionalists could raise their voices. They spoke in vain, though with great talent and boldness, for the freedom of the press and a jury. The law of censorship of November 9 remained in force. The state of the people, in the general dearness of all articles, and the weight of the taxes, needed every possible alleviation, and the king's spirit of order contributed greatly to this. From 1814 to 1816, the arrears amounted to more than 83,000,000, which had increased the budget of expenses for 1817 to 1,088,000,294 francs, being 699,000 more than in 1816; while the revenue for 1817 could not be estimated higher than 774,000,000, so that a deficit of 314,000,000 was to be covered. Recourse was had to loans; the same thing took place in 1818. The diminution of the standing army, and its entire dissolution in consequence of the congress of Aix, were, therefore, fortunate events. Among the events of the administration of Louis XVIII, it must, however, be remarked, that the national institute was restored in 1816, with its former four academies, although the best institutions, as that of the decennial prizes, were not retained. The attempt to bring Hayti to submission, by the offer of favorable conditions, utterly failed, and the concordate was not effected with the pope. Louis was himself inclined to use mild measures. On the day of St. Louis, therefore, August 25, 1818, when the bronze statue of Henry IV was erected in Paris, which had been paid for by private subscription, several persons arrested for political offences were pardoned. He allowed, also, some of the exiles who had voted for the death of the king, as Cambacérès, Rabaud, and 15 members of the convention, to return. As, however, he gave way to the inclinations of the emigrant party, on several occasions, the nation conceived suspicions that the Bourbons could not sincerely forgive. The king neglected to give full security in their property to the possessors of the national domains, by a particular edict. At the same time, the constitutional party was strengthened by the passage of laws which contradicted the articles of the charter. The liberals, therefore, obtained, for a time, the superiority, and Louis named, December 29, 1818, his third, and, November 19, 1819, his fourth ministry, under Decazes. (See *France*, since 1814.) From this time, the government of Louis had the support of public opinion. But, after the assassination of the duke of Berry, February 14, 1820, the party of the ultras again raised its head. Richelieu took the place of Decazes; the law of election was altered; the censorship of newspapers was introduced, personal freedom limited, &c. All this gave more power and influence to the extreme royalists. The party of anti-Bourbonists, which thought that the welfare of France required a dynasty not belonging immediately to the Bourbon line, remained still a large one, while the party of the princes, which showed a very great and very natural predilection for Louis, was supported by the ultras, who sought to form, in all Europe, a general coalition against liberal principles. The *white conspiracy*, as it was called, detected in 1818, showed that it was the object of the ultra royalists to destroy the constitution. They had given to the ambassadors of foreign powers a paper—written, it is said, by the baron de Vitrolles—*Note secrète exposant les pretextes et le but de la dernière conspiration*, to attract their attention to the dangers which menaced the reign of the Bourbons, that their troops might not be withdrawn from France, but a change made in the French ministry. This note, the giving of which was, according to the French laws, treasonable, caused so much dissatisfaction, that Châteaubriand, in his *Remarques sur les Affairs du Moment*, denies having had any thing to do with it. That party had in view to form a new ministry, of which Villèle, Châteaubriand, Donadieu, and others, were to be members. All examination into this business was, however, prevented, and the generals Canuel, Chapdelaine, with H. H. Joannis, Romilly, De Sorgis, &c., who had been already arrested as accomplices, were released August 19, 1818, from the secret prison (*secret*). By the ordinance, July 24, however, the baron Vitrolles was struck off the list of ministers of state and members of the privy council of the king. But Louis allowed what was called the *theocratic* party, in union with the friends to old privileges, to gain, continually, more influence in the internal management of the kingdom. This was shown by the prosecutions against the writers, who complained of abuses in the public administration, and, especially, of the measures of the secret police, by which those who were suspected of being political enemies were enticed to manifest their feelings by deeds. An instance of this kind was the punishment of the deputy Köchlin. By the change in the law of elections, in June, 1820, the system of the strict royalists was triumphant; Villèle (q. v.) was placed at the head of the ministry. But the strength of the king, who had, for several years, been unable to walk, now entirely failed him. His last triumph was the campaign in Spain in 1823. In August, 1824, it became evident that his disease was mortal. Until the day of his death, September 16, 1824, he gave proofs of firmness and resignation. "*Un roi doit mourir*," said he, quaintly, "*mais ne doit jamais être malade*." Louis XVIII possessed much intellectual cultivation and sagacity, but, enfeebled by disease, he had not sufficient strength of character to restrain the ultras, nor did he understand new France.—He had one remarkable maxim—*L'exactitude est la politesse des rois*.

Louis III (called, in German history, *the Child*), born in 893, succeeded his father, the emperor Arnulph, when six years old. In his minority, archbishop Hatto, of Mentz, administered the government, and carried the monarch about with him, wherever the affairs of the empire required the presence of the regent. During the course of his reign, Germany was desolated by the Hungarians, and torn asunder by civil discord. He assumed the imperial title in 908, but was never crowned. He died in 911 or 912, and with him ended the royal line of Charlemagne.

Louis IV, the Bavarian, emperor of Germany, son of Louis the Severe, duke of Bavaria, was born in 1286. On the death of Henry VII (q. v.), five electors were in favor of Louis, while the others supported Frederic, duke of Austria. The two rivals being both crowned, a war ensued, and Frederic was made prisoner, in the battle of Mühldorf, in 1322. (See *Bavaria*; and *Germany*, *History of*.) In 1315, Louis had expelled his brother, Rodolph, who opposed his election, from the Palatinate, but, after the death of the latter, had formed a convention with his sons, by virtue of which their patrimony was restored to them, and the electoral dignity was to belong alternately to Bavaria and the Palatinate. The vacant Mark of Brandenburg he conferred, in 1322, on his eldest son. In his disputes with pope John XXII, against whom he was joined by the Visconti party in Italy, he maintained the dignity of the German crown, and set up the antipope Nicholas V. In 1346, Clement VI excommunicated him, and succeeded in causing five electors to set Charles of Luxembourg, king of Bohemia, on the imperial throne. In the midst of this dispute, Louis died (1347). (See Mannert's *Louis IV, or the Bavarian*, in German, 1812.)

Louis Bonaparte. (See *Appendix*, end of this volume.)

Louis-Philip I, elected, Aug. 7, 1830, king of the French, known previously under the title of the duke of Orleans, eldest son of Louis-Philip, duke of Orleans (*Égalité*), and of Marie-Adelaide de Bourbon Penthièvre, grand-daughter of a natural son of Louis XIV by madame Montespan, was born at Paris, Oct. 6, 1773. The line of Bourbon-Orleans (see *Bourbon*) was founded by Philip, brother of Louis XIV, who conferred on him the duchy of Orléans. Philip II, his son, was the well known regent of France, whose grandson was Louis-Philip, father of the subject of this article. (See *Orleans*.) The wife of king Louis-Philip is Mary-Amelia, daughter of Ferdinand IV, king of the Two Sicilies. (The royal family is given in the article *France*, division *Statistics*.) Louis bore, at first, the title of *duke of Valois*, and, when his father became duke of Orleans, that of *duke of Chartres.* At the age of five years, he was placed under the care of the chevalier De Bonnard; but, in 1782, the direction of his education was intrusted to the countess De Genlis. In 1791, a decree of the constituent assembly having required the proprietary colonels to quit the military career, or to take the effective command of their regiments, the duke of Chartres, who was ambitious of the honor of serving his country, placed himself at the head of the 14th regiment of dragoons, which bore his name, and was then in garrison at Vendôme. Here he succeeded in saving, by his courage and presence of mind, a nonjuring clergyman, on the point of being massacred by the populace, which accused him of having treated with contempt a procession conducted by a constitutional clergyman. He shortly after gave a new proof of his humanity by saving an engineer from drowning. The city of Vendôme decreed him, on account of these honorable actions, a civic crown. In August, 1791, he quitted Vendôme, with his regiment, to go to Valenciennes, where he passed the winter, fulfilling the duties of the oldest colonel of the garrison. In 1792, when Louis XVI had declared war against Austria, the duke of Chartres made his first campaign. In 1792, Dumouriez succeeded Lafayette in the command of his division of the army. Sept. 11, 1792, the duke of Chartres was appointed lieutenant-general, and was called to take the command of Strasburg. "I am too young," said he, "to shut myself up in a town, and prefer to remain active in the army." He did not go to Strasburg, and Kellermann, whose army was reinforced by a division of the army of the Rhine, confided to him the command of his second line, composed of 12 battalions of infantry and 6 squadrons of cavalry. At the head of this second line, he fought at Valmy, Sept. 20, 1792, and displayed great bravery and judgment. The 26th of the same month, the executive council appointed the duke of Chartres to the second command in the new-levied troops, who were to be united by Labourdonnaye at Douay. But the duke declined this appointment, and went to Paris to ask permission to remain in the line, and in Kellermann's army; but, as he had been already superseded there, it was proposed to him to pass into that of general Dumouriez, who was going to Flanders, to attempt the invasion of Belgium, and he accepted the offer. Nov. 6, the French, under Dumouriez, gained the celebrated battle of Jemappes (q. v.), in which the duke of Chartres distinguished himself. The duke was at Tournay when the convention passed a decree of banishment against all the members of the Bourbon family who were in France. He was desirous that his father, and all the family, should join him in emigrating to the U. States; but his distance from Paris delayed the arrangements, and the decree was revoked before they were finished. In February, 1793, the duke was recalled to the army, and employed at the siege of Maestricht, under the orders of general Miranda. Shortly after this, the duke, who had manifested, with more frankness than prudence, his horror at the revolutionary excesses in France, saw a decree of arrest levelled against himself. He then resolved to quit the army and his country. He went to Mons, where he was kindly received by the archduke Charles, who offered him the commission of lieutenant-general in the Austrian army. This, however, he declined, and obtained passports for Switzerland. He went from Mons to Switzerland, in April, 1793, with Cæsar Ducrest, his aid, having but a small supply of money; crossed, as a fugitive, the same countries through which he had passed, a short time before, as a conqueror with the French army, and learned, from a newspaper, the arrest of all his family. He arrived at Basle in September, and there waited for his sister, who had just arrived at Schaffhausen, with madame de Genlis and the count Montjoye. In order to join them, he quitted Basle, and attempted, in vain, to fix himself at Zurich or Zug. He was every where repulsed, and received notice that no part of Switzerland was safe for him. In this sad situation, he was anxious to find a retreat for his sister; and count Montjoye applied to general Montesquiou, who, having fallen under the accusation of the constitutional assembly, while he commanded the army of the Alps, had taken refuge in Switzerland, and lived in retirement at Bremgarten, under the name of chevalier Rionel. This gentleman took an interest in their situation, and succeeded, not without difficulty, in getting admission for mlle d'Orleans, and even madame de Genlis, into a convent in Bremgarten. To the duke of Chartres he could only say, that there was nothing for him to do but to wander in the mountains, taking care to stay but a short time in any one place, until circumstances should become more favorable. The duke of Chartres, satisfied with having placed his sister in security, followed this judicious advice. Alone and on foot, almost without money, he began his travels in the interior of Switzerland and the Alps. Every where he was seen contending with courage against fatigue and poverty. But his resources were entirely exhausted, and, being recalled to Bremgarten by a letter from M. Montesquiou, he obtained, through the interference of that gentleman, the situation of professor at the college of Reichenau. He was examined by the officers of this institution under a feigned name, and unanimously admitted. Here he taught geography, history, the French and English languages, and mathematics, for eight months, without having been discovered. The simplicity of his manners prevented any suspicion being entertained of his elevated rank, and he was able to conciliate the esteem of the government, and the gratitude of his pupils. It was at this place that he learned the tragical end of his unfortunate father. Some political movements taking place in the Grisons, mademoiselle d'Orléans quitted the convent at Bremgarten, and joined her aunt, the princess of Conti. M. Montesquiou thought that he might now give an asylum to the prince, of whom his enemies had for some time lost all trace. The duke received the most honorable testimonials in quitting Reichenau, and retired to Bremgarten. Here he remained, under the name of Corby, until the end of 1794, when he thought proper to quit Switzerland, his retreat there being no longer a secret. In the state in which Europe then was, there was no country where the duke of Orleans (for this was now the title of the subject of this article) could be safe from the indefatigable persecution of which he was the object. He resolved to go to America; and Hamburg appeared to him the best place for his embarkation. He arrived in that city in 1795. Here his expectation of funds failed him, and he could not collect sufficient pecuniary means to reach the United States; but, being tired of a state of inactivity, and provided with a letter of credit for a small sum on a Copenhagen banker, he resolved to visit the north of Europe. This banker succeeded in obtaining passports for him from the king of Denmark, not as the duke of Orleans, but as a Swiss traveller, by means of which he was able to travel in safety. He travelled through Norway and Sweden, seeing every thing worthy of curiosity in the way; journeyed on foot with the Laplanders, along the mountains, to the gulf of Tys, and reached the North Cape August 24, 1795. After staying a few days in this region, at eighteen degrees from the pole, he returned through Lapland to Torneo, at the extremity of the gulf of Bothnia. From Torneo he went to Abo, and traversed Finland; but he did not visit Russia, where Catharine then reigned. He next visited Stockholm, where he was discovered by the French minister in Sweden, and introduced to the king and the duke of Sudermania, who treated him with distinction, and offered him every facility for seeing all he desired in the kingdom. After this northern tour, the position of the duke of Orleans, in a political and pecuniary point of view, did not improve. Emissaries from different parties sought the prince, bringing him different propositions. Some of them were desirous of drawing him into foreign camps; while the agents of the executive directory, to which he had become an object of suspicion, wished to persuade him to leave Europe. In the month of August, 1796, he received a letter from his mother, the duchess of Orleans. She begged him, in the most touching manner, in her own name, and for the interest of her other children, detained at Marseilles, to quit Europe for America. He sailed from the Elbe, on board the American ship America, in September, 1796, and, in October, he arrived in Philadelphia. The passage of his two brothers, the duke of Montpensier and count Beaujolais, was not so fortunate. It was not until February, 1797, that they reached America, and joined their brother. They brought him more hopes than resources. The duke of Orleans proposed to them to travel in the interior of the United States. They set out on horseback, accompanied by a single servant, named Beaudouin, who had followed the duke of Orleans to St. Gothard. They went to Baltimore, and thence into Virginia, where they saw general Washington at Mount Vernon, who, before the expiration of his presidency, had invited them to visit him. After travelling through the south, they visited the falls of Niagara, and, in the month of July, 1797, they returned to Philadelphia, at the time the yellow fever raged in that city. These three princes, who had been born to the highest fortune, could not quit this dangerous residence for want of money. It was not until September, that their mother, having recovered possession of her property, supplied them with means for a new journey. They went first to New York, and then visited Rhode Island, Massachusetts, New Hampshire and Maine. On their return to Boston, the newspapers informed them of the banishment of their mother. They then went immediately to Philadelphia, intending to join their mother in Spain, whither they were informed that she had been transported. But the want of funds, and the war between Spain and England, opposed their desires. There seemed but one course left, namely, to go to Louisiana, and thence to Havana. They left Philadelphia in December, 1797, and went down the Ohio and the Mississippi, to New Orleans, where they were kindly received. They staid in this city five weeks, waiting for a Spanish vessel; but, being disappointed, they embarked in an American ship, which was taken, on the voyage, by an English frigate. The duke of Orleans discovered himself to the captain, who landed him with his brothers at Havana, the 11th of March. They attempted in vain to get a passage to Europe. Notwithstanding their regret at being obliged to live out of France, they would have been contented in obscurity, if they could have obtained the means of an honorable subsistence. Their reception by the Spanish authorities, and the inhabitants of Havana, gave them some hopes; but the court of Madrid disappointed them, by forcing them to quit the island of Cuba. An order was issued at Aranjuez, directing the captain-general of Havana to send the three brothers to New Orleans, without providing them with any means of support. The brothers refused to go to the place designated, but went to the English Bahamas, where they were kindly received by the duke of Kent, who, however, did not feel authorized to give them a passage to England in a British frigate. They were not discouraged, but sailed in a small vessel to New York, whence an English packet carried them to Falmouth, and they arrived in London in February, 1800. The duke still desired most earnestly to see his mother, and the English government allowed him to take passage to Minorca in a frigate. The war between Spain and England threw many obstacles in the way of the interview between the duke and his mother, and he was obliged to return to England without seeing her. He then established himself, with his brothers, at Twickenham, in England. The duke visited every thing curious in Great Britain, and studied, with great zeal, the political economy and the laws of the country. The duke of Montpensier died in the year 1807. Count Beaujolais was in feeble health, and was ordered by the English physicians to visit a warmer climate. The duke accompanied him to Malta; from thence to Sicily; but, before their arrival at the latter place, the young prince died. After many adventures, the duke met his mother at Mahon, from whom he had been separated sixteen years. In November, 1809, he was married, at Palermo, to the princess Amelia, daughter of the king of Sicily. After the fall of Napoleon, he returned to Paris, and enjoyed the happiness of finding himself in a country which had not forgotten his former services. On the return of Napoleon, in 1815, he sent his family to England, and was ordered by the king to take command of the department of the North. He remained in this situation until the 24th of March, 1815, when he gave up the command to the duke of Treviso, and went to join his family in England, where he again fixed his residence at Twickenham. On the return of Louis XVIII, after the hundred days, an ordinance was issued, authorizing, according to the charter, as it then stood, all the princes of the blood to take their seats in the chamber of peers; and the duke returned to France, in September, 1815, for the purpose of being present at the session. Here he distinguished himself by a display of liberal sentiments, which were so little agreeable to the administration, that he retired again to England, where he remained till 1817. He was not again summoned to sit in the chamber, on his return, and remained, therefore, in private life, in which he displayed all the virtues of a good father, a good husband, and a good citizen. In 1824, he received the title of *royal highness*. His son, the duke of Chartres (now duke of Orleans), was educated, like his ancestor, Henry IV, in the public institutions of the country, and distinguished himself by his success in his studies. The family of the duke was ever a model of union, good morals, and domestic virtues. Personally simple in his tastes, order and economy were combined with a magnificence becoming his rank and wealth. The protector of the fine arts, and the patron of letters, his superb palace, and his delightful seat at Neuilly, were ornamented with the productions of the former, and frequented by the distinguished scholars of the age. After the events of July, 1830 (see *France*, since 1814), the deputies present, 89 in number, invited the duke to assume the executive power, under the title of lieutenant-general of the kingdom. During the three days, he had remained at his country seat, at Neuilly, and had even kept himself concealed, so that confidential messengers, sent to him on Wednesday and Thursday, had been unable to find him. But, after the combat was over, feeling that the throne was now vacant, he accepted the invitation of the deputies, to become lieutenant-general of the kingdom, and, on Saturday, issued a proclamation in that capacity. The session of the chambers was opened, Aug. 3, by the lieutenant-general, who communicated to them the abdication of Charles X and his son. Aug. 6 and 7, the chamber of deputies declared the throne vacant, and invited the duke of Orleans to assume the title of king of the French, under certain conditions, which he accepted, and, on the 9th, took the oath to the new charter. Thus, in a fortnight from the issuing of the ordinances, the old dynasty was overthrown, and a new one established, on republican principles. The king immediately proceeded to name his cabinet, from the moderate liberal party. Guizot, Louis, Molé, the duke de Broglie, Gerard and Sebastiani, were the new heads of the different departments, and numerous changes were made in the officers of the government, to establish a harmony between the agents of power and the new system. In the administrative branch, out of 86 prefects, 76 were removed; 196 subprefects, out of 277: in the military, 65 general officers, out of 75, were changed; 65 colonels removed, and nearly all the governors of fortresses: in the legal, 74 *procureurs* were dismissed. The foreign relations of the new dynasty next required attention: special missions were sent to the different courts of Europe, and were favorably received by all except Russia. Security against foreign invasion, and the preservation of domestic tranquillity, were provided for by the organization of the national guard, and the increase of the army. (For the trial of the ministers, the riots attending it, and farther details on the history of France, see *Appendix* to the concluding volume of this work.) Peyronnet (q. v.), Chantelauze, Guernon de Ranville and Polignac (q. v.), were sentenced to imprisonment for life, with the additional penalty of civil death, in the case of Polignac. Nov. 3, the ministry was changed, and Laffitte became president of the council and minister of finance, who was succeeded in this post by Casimir-Perrier (see *Perrier*), March 14, 1831.

Louis, the baron, formerly more known as the *abbé Louis*, a French statesman, was born at Toul, in 1755, and, at the outbreak of the revolution, was connected with the parliament of Paris. He showed himself favorable to the new principles, and, in 1790, assisted the bishop of Autun (Talleyrand) in celebrating mass on the *Champ de Mars*. On the overthrow of royalty, he retired to England, where he remained until the revolution of the 18th Brumaire. During the imperial government, he held several inferior posts in the departments of war and finance, and, in 1814, was made minister of finance by Louis XVIII, whom he followed to Ghent. After the second restoration, he was a member of the chamber of deputies, until 1818, when he was again placed at the head of the financial department, from which he retired in 1819, in consequence of the arbitrary tendency of the ministerial policy at that time. After this retirement, he voted, in the chamber of the deputies, with the liberal side of the house (*côté gauche*). M. Louis was the first minister of finance under the new government, in 1830, but was succeeded (Nov. 3) by Laffitte. (q. v.) M. Louis is largely engaged in the wine trade, and has accumulated a large fortune by successful commercial operations. Of a cool temperament, his moderation has never permitted him to join in the extremes of any party; but his honesty, information and good sense seem to have acquired the esteem and confidence of all.

Louis, St.; the chief town of Missouri, on the west bank of the Mississippi, 18 miles, by water, below the junction of the Missouri, and 14 above that of the Maramec, 30 below that of the Illinois, 200 above that of the Ohio, 1180 above New Orleans, about 1100 below the falls of St. Anthony, 897 from Washington; lon. 89° 36′ W.; lat. 38° 36′ N.: population, in 1810, 1600; in 1820, 4598; in 1830, 5852. The situation of the town is elevated, pleasant and healthy. The ground on which it stands rises gradually from the first to the second bank. Three streets run parallel with the river, and are intersected by a number of others at right angles. The town extends along the river about two miles. The second bank is about 40 feet higher than the plain on which the town is chiefly built, and affords a fine view of the town and river. On this bank stand the fortifications erected, in early times, for the defence of the place. The town contains several houses of public worship, among which is a Catholic cathedral, and a theatre. The houses are mostly of wood, but many are built of stone, and whitewashed. Most of them are furnished with a large garden.—St. Louis was first established in 1764. It is, at present, in a state of rapid improvement, fast increasing in population and trade. Its situation is advantageous and interesting, being more central, with regard to the whole territory belonging to the U. States, than any other considerable town; and, uniting the advantages of the three great rivers, Mississippi, Missouri and Illinois, with their numerous branches, and possessing unrivalled facilities for an extensive trade, it will probably become a large city, and be the centre of an extensive commerce. The country around and west of St. Louis, for the distance of 15 miles, is an extended prairie, of a very luxuriant soil. (For the college, see *Missouri.*)

Louisa, Augusta Wilhelmina Amalia, queen of Prussia, daughter of Charles, duke of Mecklenburg-Strelitz, was born March 10, 1776, at Hanover, where her father was commandant. When six years old, she lost her mother; and her grandmother, at Darmstadt, took charge of her education. In 1793, the present king of Prussia, then prince royal, saw her at Frankfort, when she and her sister were presented to his father. The prince was immediately struck with her uncommon beauty, and was soon after betrothed to her. Prince Louis, of Prussia, was betrothed, on the same day, to her sister, the present duchess of Cumberland. Dec. 24, 1793, the princess Louisa was married to the crown-prince at Berlin, and, when her husband ascended the throne, Nov. 16, 1797, she became, in her exalted station, the model of a wife, a mother, and a queen, who alleviated misery wherever she could, and promoted merit. In 1806, when Prussia was suffering severely under the burdens of war, this princess became still more popular: indeed, her beauty and grace, her benevolent and pure character, her sufferings and her fortitude, rendered her an object almost of adoration. She died in 1810.

Louisburg; capital of Cape Breton; situated on a point of land on the south-east side of the island; lon. 59° 56′ W.; lat. 45° 54′ N. Its streets are regular and broad, consisting, for the most part, of stone houses, with a large parade at a little distance from the citadel, the inside of which is a fine square, near 200 feet every way. The town is half an English mile in length, and two in circuit. The harbor is excellent, and is more than half an English mile in breadth in the narrowest part, and six miles in length, from north-east to south-west. The principal trade of Louisburg is the cod fishery. It was taken from the French by the English fleet, under sir Peter Warren, and the American forces, commanded by sir William Pepperel, in the year 1745, but afterwards restored to France, by the treaty of Aix-la-Chapelle, in 1748. It was again taken by the English, under the command of admiral Boscawen and lieutenant-general Amherst, in July, 1758, and its fortifications have been since demolished.

Louis d'or; a French gold coin, which received its name from Louis XIII, who first coined it in 1641. (See the article *Coins.*) The value of the *Louis* is there given at $4,35. Louis XIII coined, likewise, a piece of silver money, called *louis blanc*, also *ecus*, and, among us, *French crowns*.

Louisiana Territory. The French, when in possession of a great portion of the continent of North America, seem to have applied this name, in a vague manner, to all the territories claimed by them south and west of Canada. In this sense, it must be considered as coextensive with the valley of the Mississippi, bounded on the east by the Alleghanies, and stretching westerly an unknown and indefinite extent to the Spanish dominions and the then unexplored wilds of the interior. By the treaty of 1763, which made the Mississippi the boundary between the English and French colonies, the name was limited to the part of the valley west of the river, but still of an unsettled extent westward. This region was purchased of France by the U. States, by which it has been explored, and formed into the states of Louisiana and Missouri and the territories of Arkansas and Missouri. We shall here give a general account of the progress of discovery in this great region, and of its history, referring, for local details, to the separate heads above mentioned. The Spaniards were the first to colonize, if not to discover, Florida, the western limits of which were by no means accurately fixed; and De Soto (q. v.) was probably the first white man who saw the Mississippi, which he crossed in one of his expeditions, not far from the influx of the Red river. In 1673, a French missionary, Marquette (q. v.), with Joliette, a citizen of Quebec, crossed the country from lake Michigan to the Mississippi, which they descended to the mouth of the Arkansas.—See *Recueil des Voyages* (Paris, 1681), published by Thevenot, as a supplement to his collection.—Six years later, De la Salle (q. v.), commander of a fort on lake Ontario, set out to explore the country, having in company father Hennepin. They passed the winter on the Illinois, and La Salle returned to Canada to procure supplies, leaving the missionary with orders to ascend the Mississippi to its sources. In the spring of 1680, Hennepin accordingly descended to the mouth of the river, followed up its course to the falls of St. Anthony, and, on his return to France, published an account of his travels, in which he called the region *Louisiana*, in honor of Louis XIV. (See *Hennepin.*) The first attempts at the colonization of this region were not made till 1699, when an expedition sailed from Rochefort, under the command of Lemoine d'Ibberville, a Canadian naval officer of reputation, who was the first to enter the Mississippi by sea, and who laid the foundation of the first colony at Biloxi. The Spaniards, who had not long before established a settlement at Pensacola, protested against the occupation of this country, which they claimed to be included within the limits of Mexico, by the French, but were not able to prevent their occupying a new post on Mobile river, in 1702. The French had kept up a communication between their colonies in Canada and Louisiana, and had been active in exploring the country, principally on the river and to the east of it. In 1713, a census of the latter colony gave a population of 400. In the year 1712, Antoine de Crozat, who had amassed a fortune of 40,000,000 livres in the India trade, purchased a grant of this country, with the exclusive right of commerce for 16 years. Disappointed in his speculations, Crozat gave up the grant in 1717, and the Mississippi commercial company obtained it. A new government was formed, consisting of a governor, intendant and royal council, and grants of land were made to individuals. New Orleans was founded, the cultivation of tobacco was introduced, and miners were sent to work the mines near St. Louis; but, in 1731, the company gave up the country to the crown. The early hostilities of the French with the Spanish and English colonists, and with the different native tribes, it is not our intention to relate. (See *Natchez.*) The struggle of the French and English power in North America, from 1754, is a subject of more interest. The French had scattered themselves over the more central parts of the beautiful valley of the Mississippi. Kaskaskia, Cahokia, Vincennes, St. Genevieve, the post of Arkansas, Nachitoches on Red river, Natchez on the Mississippi, were rallying-points of the rural population in this immense region, who had adopted, in some degree, the manners of the Indian hunters, while New Orleans and Mobile had become places of considerable commerce. The French claimed all the country west of the Alleghanies, and had established a chain of communication from New Orleans to Quebec, which they meditated to strengthen by a line of fortified posts. The English, who claimed the country from the Atlantic to the St. Lawrence, found themselves thus exposed to be shut in upon the eastern slope of the Alleghanies. The French occupied and fortified the important position at the head of the Ohio, to which they gave the name of *fort du Quesne.* The English general Braddock failed in his attack on this post, but the war terminated in the complete humiliation of France, who, by the peace of 1763, was obliged to cede Canada, and all her possessions east of the Mississippi, to England. The preceding year (November, 1762), she had ceded all her possessions west of that river, with the island of Orleans, to Spain, and the name of *Louisiana* now became limited to this part of the valley. In the war of the American revolution, Spain conquered Florida from the English, and, by the peace of 1783, that province was ceded to the Spaniards, while all the country between Florida and the St. Lawrence, and the ocean and the Mississippi, was acknowledged as an independent state. (See *United States*, *Kentucky*, *Tennessee*, *Ohio*, &c.) The navigation of the Mississippi soon became a source of difficulty between Spain and the U. States. After much delay, the treaty of 1795 was concluded between the two powers, by which a line of boundary was agreed on, and the free navigation of the river secured to the U. States. In 1798, the Spanish posts, to the north of 31°, were evacuated, but Spanish ships committed depredations on the American commerce, and refused to allow the navigation of the Mississippi, and the right of deposit at New Orleans, which had been secured by treaties. A force was accordingly prepared on the Ohio, by the government of the U. States, in 1799, intended to descend the Mississippi and seize New Orleans. A change of administration was followed by the disbanding of these troops, but representations were made to Spain against the violation of the treaty, with a demand of redress, which was answered by the declaration that Louisiana had been ceded to France. The French force destined for the occupation of the country was blockaded in the Dutch ports by the English, and the first consul ceded Louisiana to the U. States for the sum of $15,000,000, by a treaty dated April 13, 1803. (See the secret history of this treaty in the *Histoire de la Louisiane*, by Barbé-Marbois, Paris, 1829.) The country passed peaceably into the possession of the U. States, and measures were immediately taken for organizing its government, and examining its unknown regions. It was divided into the territorial governments of Orleans, which, in 1812, was admitted into the Union as an independent state under the name of *Louisiana* (see *Louisiana, State of*), and of Louisiana, afterwards changed to *Missouri*. (See *Missouri State*, and *Missouri Territory*.) The first national expedition was planned by president Jefferson, and placed under the command of captain Lewis (q. v.) and lieutenant Clarke (afterwards governor of Missouri), with instructions to ascend the Missouri, cross the Rocky mountains, and descend, by the Columbia, to the Pacific ocean. They began the longest river voyage since the time of Orellana, May 14, 1804. Having wintered at fort Mandan, they continued their voyage next spring, and, after a course of 3000 miles, arrived at the fountain head of the Missouri. Fifty days were occupied in crossing the mountains by a difficult road; but shorter and more easy passages have since been discovered. Descending the Columbia to its mouth, they reached the Pacific ocean, at a distance of 4134 miles from their starting-point. They returned by a somewhat shorter route of 3550 miles, having been the first who had crossed the North American continent, from the Mississippi to the Pacific. (See Lewis and Clarke's *Expedition to the Sources of the Missouri*, Philadelphia, 1814.) About the same time, lieutenant (afterwards major) Pike was sent to explore the sources of the Mississippi, and, on his return from that expedition, to survey the country lying between the Rocky mountains and the Mississippi, and examine the sources of the Arkansas and Red rivers. Having arrived at the head of the former, and suffered much from cold and hunger, on account of the elevated situation of the country, he reached a large river, which he supposed to be the Red river, but which proved to be the Del Norte. He had unconsciously entered the Spanish territories with his party, when they were arrested by Spanish soldiers, and carried, almost without clothing, to Santa Fé, but were afterwards set at liberty, and returned to Nachitoches. (See Pike's *Expedition to the Sources of the Mississippi*, Philadelphia, 1810.) In 1819, the federal government organized a new expedition, of a military and scientific nature, to examine more carefully, with a view to colonization and defensive establishments, the country east of the Rocky mountains. It was commanded by major Long, and a narrative of it has been written by doctor James, botanist to the expedition. The party embarked at Pittsburg, in a steam-boat, and reached the mouth of the Platte in the middle of September. Having passed the winter on the banks of that river, they resumed their route in June, 1820, and crossed the great sandy desert which extends, in a gentle slope, nearly 400 miles, to the base of the Rocky mountains, and nearly 500 miles from north to south. Its surface is furrowed by ravines, several hundred feet deep, in which are a few stunted trees. On the elevated surface of the desert, not a tree is to be seen; but it is thickly set with the spiny cactus, or prickly pear. Proceeding southwardly, they descended the Arkansas, and returned with large collections of skins of rare animals, some thousand preserved insects, and an herbal of 400 or 500 new plants. (See *Account of an Expedition to the Rocky Mountains*, Philadelphia, 1828.) Another expedition, under general (now governor) Cass, proceeded to explore the British frontiers about the sources of the Mississippi. Schoolcraft was the historian of this expedition. (*Travels to the Sources of the Mississippi, in* 1820, Albany, 1821.) To complete the survey of the frontier, major Long was sent, in 1823, with Mr. Keating, to ascend the St. Peter's, a considerable river which falls into the Mississippi. They traced the river to its source (375 miles), and, proceeding northward, reached the Red river, which flows into lake Winnipec. (See *Narrative of the Second Expedition to St. Peter's River, Lake Winnipec, &c., by William H. Keating*.) This completed the general survey of this immense region. Its northern boundary was settled by the convention of 1818 with Great Britain, on a line drawn in 49° from the lake of the Woods to the Rocky mountains: the southern, by the treaty of 1819 with Spain, is from the

Sabine river, in 32° N., to the Red river; then along that river to 100° W., thence directly north to the Arkansas, which it follows to 42° N., and thence, in that parallel, to the South sea. The states of Louisiana and Missouri, and the territory of the Arkansas (q. v.), have already been set off, and are occupied with a thin, but active and rapidly increasing population. The great mineral and vegetable wealth of this vast region, and its almost unparalleled facilities of communication, open a wide prospect to the prosperous, free and happy communities that are springing up in its bosom. The territory west of the Rocky mountains, which seems to belong to the U. States rather by priority of discovery than as a part of the Louisiana purchase, will be described under the head of *Oregon*. Beside the works already mentioned, consult Charlevoix's *Description de la Nouvelle France;* Jefferson's *Account of Louisiana;* Stoddard's *Sketches of Louisiana;* and Flint's interesting work, *Geography and History of the Mississippi Valley* (Cincinnati, 1828.)

Louisiana; one of the U. States, formed in 1812. It is bounded north by Arkansas territory, east by the state of Mississippi and the gulf of Mexico. The eastern boundary line is formed by the river Mississippi, from lat. 33° to 31° N.; thence, by the parallel of 31°, to Pearl river; thence by that stream to its mouth. The gulf of Mexico forms the southern boundary, and Sabine river the western, from its mouth to lat. 32° N.; thence the boundary line proceeds due north to lat. 33°, thence due east to the Mississippi; lon. 89° to 94° 5′ W.; lat. 29° to 33° N.; 240 miles long, from north to south, and 210 broad; square miles, 48,220, or 31,463,000 acres: population, in 1820, 153,407; slaves, 69,064: in 1830, 214,693. The principal rivers are the Mississippi, Red, Ouachitta, Black, Tensaw, Sabine, Calcasiu, Mermentau, Vermilion, Atchafalaya, Teche, Pearl, Amite and Iberville. The largest lakes are Pontchartrain, Maurepas, Borgne, Chetimaches, Mermentau, Calcasiu, Sabine, Bistineau, Bodcau and Ocatahoola. All the southern part of this state is a vast alluvial tract of low champaign country, extending from lake Borgne to Sabine river, and from the gulf of Mexico to Baton Rouge and Red river; about 250 miles long, and from 70 to 140 wide. This extensive tract is intersected by numerous rivers, bays, creeks and lakes, dividing the country into a great number of islands. The country about the Balize is one continued swamp, destitute of trees, and covered with a species of coarse reeds, from four to five feet high. Nothing can be more dreary than a prospect from a ship's mast, while passing this immense waste. A large extent of country in this state is annually overflowed by the Mississippi. According to Mr. Darby, the average width of overflowed lands above Red river, from lat. 31° to 33° N., may be assumed at 20 miles, equal to 2770 square miles. Below lat. 31° to the efflux of the Lafourche, about 80 miles in extent, the inundation is about 40 miles in width, equal to 3200 square miles. All the country below the efflux of the Lafourche is liable to be inundated, equal to 2370 square miles. From this calculation, it appears that 8340 square miles are liable to be inundated by the overflowing of the Mississippi; and if to this be added 2550 square miles for the inundated lands on Red river, the whole surface of the state liable to inundation, will amount to 10,890 square miles. Of this extent, not one half is actually covered annually with water. The immediate banks of all the streams are seldom, and many of them never, inundated; and they afford strips of rich, tillable land, from a mile to a mile and a half wide. The country between the Mississippi, Iberville and Pearl rivers is an important part of the state. The southern half is a level country, yet highly productive in cotton, sugar, rice, corn and indigo. The northern part presents an undulating surface, covered with a heavy growth of timber, consisting of white, red and yellow oak, hickory, black walnut, sassafras, magnolia and poplar. The district of New Feliciana has been considered, by some, as the garden of Louisiana. The south-western part of the state, comprising the districts of Opelousas and Attakapas, consists mostly of extensive prairies. Some of these prairies are detached, but the lines of woods between them are generally very narrow, and they may be considered as forming one immense meadow. A large portion of these tracts are barren, but some parts, particularly that bordering on the Teche, are very fertile, and contain flourishing settlements. It has been estimated, that the prairie lands in the state, including the swamps along the gulf of Mexico, constitute one fifth of its whole surface. The country on both sides of Red river, from its mouth to the limits of the state, is intersected with lakes, which are more than 40 in number, and all communicate with the river. The bottoms on the river are from one to ten miles wide, and of a very fertile soil. The timber on the bottoms is willow, cotton-wood, hon ey-locust, pawpaw and buckeye; on the rich uplands, elm, cucumber, ash, hickory, mulberry, black walnut, with abundance of grape-vines; upon the second-rate, or sandy uplands, white, pitch and yellow pines, and various kinds of oak.—The climate of Louisiana is as cold as that of the Atlantic states about two degrees further north. The orange ceases at about 30°, the sugar-cane at 31°. Sugar and rice are the staples of the state in general south of 30°, and cotton north of that parallel; the latter, however, is extensively cultivated in every part of the state. Among the fruits are the apple in the northern parts, the peach, and several species of fig (q. v.), the orange, the pomegranate and grape. The olive-tree is found, and the Provençals, who were settled in Louisiana, affirmed that the oil was as good as that of their native country. Indigo was formerly much cultivated, but has been, of late, in a great measure abandoned. The rice is remarkably good, and yields abundantly. Some attention has lately been paid to the cultivation of the tea plant; and the finest tobacco is raised, but is not so profitable as sugar and cotton. The kinds of cotton cultivated are Louisiana, green seed, or Tennessee, and, recently, Mexican cotton. The amount of sugar made in 1828 was 87,965 hhds.; of molasses, 39,874 hhds.: in 1829, the sugar made was 48,238 hhds.; and, as there are 40 gallons of molasses to each hogshead of sugar, the hogsheads of molasses must have been somewhat less than half as numerous. The tobacco exported, from Oct. 1, 1827, to Oct. 1, 1830, was, for the first 12 months, 35,111 hhds.; for the second, 25,491; for the third, 28,028. The bales of cotton exported in the same periods were 304,848, 267,949, 351,890. The total of exports of the state, in 1829, was $12,386,060. The value of imports, for the same time, was $6,857,209; amount of tonnage, 51,903, of which 17,000 was steamboat tonnage. The arrivals at the port of New Orleans, from Oct. 1, 1829, to Oct. 1, 1830, were 286 ships, 445 brigs, 366 schooners, 33 sloops, 778 steam-boats,—total, 1898. (For an account of the canals, see *Inland Navigation.*) The U. States granted the state 46,080 acres of land for a college, and one thirty-sixth of each township, or 873,000 acres, for schools. There are colleges at New Orleans and Jackson. In 1827, the legislature made a grant to each parish of $2,62½ to every voter, to be applied to the education of the poor; in consequence of which nearly $40,000 are annually applied for this purpose. The Catholic is the predominant religion of Louisiana: there are a few Baptists and Methodists. According to returns for 1828, the militia amounted to 12,274 men. The principal towns in the state are New Orleans (q. v.), Donaldson or Donaldsonville (the seat of government), Nachitoches, Alexandria, Baton Rouge, Opelousas, Galveztown, &c. The constitution differs little from those of the other states (see *Constitutions*); but the law is not the common law which prevails in the rest of the country, except so far as its provisions have been introduced by statute. The civil law, which prevailed under the French dominion, has been retained in its principal features. (See, below, *Louisiana, Code of.*) The present white inhabitants of Louisiana are descendants of the Spaniards, French and Anglo-Americans, or emigrants from the other states, or from the Spanish colonies. The character of such a mixed population, scattered over a great extent of country, must, of course, be various. The English language and the Anglo-American institutions are, however, assuming the predominance. The early history of the state will be found in the preceding article. In 1812, the territory of Orleans, having been found to contain the requisite number of inhabitants, was admitted into the Union, under the name of *Louisiana*. Jan. 8, 1815, the attack of the English on New Orleans was repulsed by general Jackson. (See *New Orleans.*)

Louisiana, Code of. Most of the U. States, even those which were formerly colonies of France and Spain, have adopted the common law of England, as the basis of their municipal law. The state of Louisiana, however, has steadily adhered to the civil jurisprudence which it derived from the continent of Europe, though, in criminal matters, the English jurisprudence has been followed. The custom of Paris, which the colonists brought with them, as the law of the new colony, was first reduced to writing in France in 1510, and enlarged and amended in 1580. The deficiencies of the customary law, both in the mother country and the colony, were supplied by reference to the Roman jurisprudence. Louisiana was ceded by France to Spain in 1762, and was taken possession of by this latter power in 1769, when the Spanish law was introduced. The great body of this law, called the *Siete Partidas*, was compiled as early as 1263. The *Recopilacion de Castilla*, published in 1567, was intended to clear up the confusion of the previous codes, but it leaves the authority of the *Partidas* generally unimpaired. The cession of Louisiana to the U. States necessarily introduced the trial by jury in a modified form, and the writ of *habeas corpus*, which were unknown to the preexisting laws. The legislative council of the territory of Orleans borrowed largely from the common law, but principally those forms of proceedings necessary to confer efficient powers on the courts organized under the authority of the Union. But, in the adjudication of suits between individuals, the Spanish jurisprudence was the sole guide, except in commercial questions. In 1806, the legislative council ordered two able jurists to prepare a civil code for the use of the territory, on the groundwork of the civil laws which governed the territory. It was reported in 1808, and adopted, but was not allowed to supersede the previous laws, except as far as those laws were inconsistent with its provisions.* The "Digest of the Civil Code now in Force in the Territory of Orleans," as it was called, though termed a code, is, in fact, little more than a synopsis of the jurisprudence of Spain. It continued in operation for 14 years, without any material innovation. In 1822, Messrs. Derbigny, Livingston and Moreau Lislet were selected by the legislature to revise and amend the civil code, and to add to it such of the laws still in force as were not included therein. They were authorized to add a system of commercial law, and a code of practice. The code which they prepared, having been adopted, was promulgated in 1824, under the title of the "Civil Code of the State of Louisiana;" and the legislature resolved, that, "from and after the promulgation of this code, the Spanish, Roman and French laws, which were in force when Louisiana was ceded to the U. States, and the acts of the legislative council of the legislature of the territory of Orleans, and of the legislature of the state of Louisiana, be, and hereby are, repealed in every case for which it has been specially provided in this code." It would seem that where the code is silent on any subject, any preëxisting law on that subject, whether of French or Spanish origin, or of native growth, would be considered as still in force. The new code, independently of the great changes which it has introduced, is much more full and explicit in the doctrinal parts than the former digest. The theory of obligations, particularly, deserves to be mentioned, as comprising, in a condensed and even elegant form, the most satisfactory enunciation of general principles. The jurisconsults appear to have profited much by the great work of Toullier, entitled *Le Droit civil Français*. The code contains 3552 articles, numbered from the beginning for convenience of reference. The most striking and material changes introduced by the new code, relate to the rules of succession, and the enlarged liberty of disposing of property by last will, by curtailing the portions which must be reserved for forced heirs. The new order of succession conforms to that established in France by the Code Napoleon, and will be found to be copied almost precisely from the 118th novel of Justinian, from which the Spanish rules of descent had deviated in some essential particulars.—The legislature of Louisiana provided also for the formation of a penal code, by an act passed in 1820, and intrusted the charge of preparing it to Mr. Edward Livingston. A plan of a penal code was accordingly drawn up by him, and presented to the legislature in 1822. The manuscript copy of the part of the code which had been prepared, was destroyed by fire in 1824, and Mr. Livingston has been since engaged in repairing the loss, and completing the code.

Louisville; a city of Kentucky, on the Ohio, opposite to the rapids or falls of that river, on a plain elevated about 70 feet above the level of the river; lon. 85° 30′ W.; lat. 38° 3′ N. The soil is rather sandy, with a substratum of rich clay, from which very good bricks are made. The town is regularly laid out: eight broad and straight streets, parallel with the river, are intersected by 18 others, at right angles, running from the river to the southern boundary of the city, which is about three miles long, with an average width of upwards of one mile. The population, by the census of 1830, was estimated at about 10,500: a most rapid increase has taken place, and the numbers are now (June, 1831) estimated at 13,000 to 14,000. The public buildings in Louisville are a court-house, gaol, ten houses of public worship, a poor-house, city school and marine hospital, all in good taste. The private buildings are mostly of brick, without much ornament; the warehouses, particularly those which have been erected within one or two years, are very extensive. Louisville is the most commercial city in the west, commanding the

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* In 1819, a law was passed to encourage and authorize the translation of such parts of the *Partidas* as were conceived to have the force of law in the state, and such a translation was made.

commerce of a great extent of country. It exports tobacco, whiskey, cotton bagging and baling, hemp, flour, pork, bacon, lard, and many other productions of the country. Its imports are various and extensive, the easy circumstances of the people whom it supplies creating a large demand for foreign articles of comfort and luxury. The commerce is carried on by upwards of 300 steam-boats, measuring from 50 to 500 tons each, some of which are daily arriving from or departing for all parts of the immense valley of the Mississippi. The arrivals during the last year exceeded 1500, and the departures were about the same number; this is exclusive of keel and flat boats, which must have amounted to at least that number. Louisville is the great commercial depot for the country bordering on the Ohio and its tributary waters, and the Mississippi above Natchez, the country lying near to the great lakes resorting to this city for many articles of trade. A bridge over the Ohio is contemplated to be built at this place, which will give great facilities to the intercourse with the state of Indiana; and a rail-road is about being commenced, to connect the trade of Lexington and the rich counties of the centre of Kentucky with its commercial mart. The public building most worthy of note is the marine hospital, erected from funds granted by the state. It cost about $40,000. It is supported by annual grants from the general marine hospital fund of the U. States, and from a tax on auction sales within the city: this institution annually alleviates the distresses of hundreds of sick and infirm boatmen and decayed seamen. The city school was established in 1830. The building is of brick, and is three stories high: in each story is a separate school, chiefly on the monitorial plan. It will accommodate about 600 children, and now contains about 400. There are several excellent private schools. A branch of the bank of the U. States was established in 1817. Louisville has also an insurance-office, three daily papers, and a weekly price-current. There are 50 licensed hacks and about 150 drays and carts. Mail-coaches daily arrive from the great roads, east, west, north and south. Manufactures are yet in their infancy. There is one manufactory of cotton, and one of woollen, three iron founderies, and a steam-engine factory, tanneries, &c. Hats, saddles, shoes, &c., are made. The Louisville and Portland canal is about two miles in length; it is intended for steamboats of the largest class, and to overcome a fall of 24 feet, occasioned by an irregular ledge of lime-rock, through which the entire bed of the canal is excavated, a part of it to the depth of 12 feet, overlaid with earth. There is one guard and three lift locks combined, all of which have their foundation on the rock. There are two bridges; one of stone, 240 feet long, with an elevation of 68 feet to the top of the parapet wall, and three arches, the centre one of which is semi-elliptical, with a transverse diameter of 66, and a semi-conjugate diameter of 22 feet; the two side arches are segments of 40 feet span; the other is a pivot bridge, built over the head of the guard lock, and is of wood, 100 feet long, with a span of 52 feet, intended to open, in time of high water, as boats are passing through the canal. The guard lock is 190 feet long in the clear, with semicircular heads of 26 feet in diameter; is 50 feet wide, and 42 feet high. The solid contents of this lock are equal to those of 15 common locks, such as are built on the Ohio and New York canals. The lift locks are of the same width with the guard lock, 20 feet high, and 183 feet long in the clear. The entire length of the walls, from the head of the guard lock to the end of the outlet lock, is 921 feet. There are three culverts to drain off the water from the adjacent lands, the mason work of which, when added to the locks and bridge, gives the whole amount of mason work 41,989 perches, equal to about 30 common canal locks. The cross section of the canal is 200 feet at the top of the banks, 50 feet at the bottom, and 42 feet high, having a capacity equal to that of 25 common canals. The Louisville and Portland canal was completed and put in partial operation on the first of January, 1831, from which time up to June 1 of the same year, 505 boats of different descriptions passed its locks. A bank of mud at its mouth, which could not be removed last winter from the too sudden rise of the water, will be removed at the ensuing period of low water, when the canal can be navigated at all times, by all such vessels as navigate the Ohio. The Ohio, when the water is lowest, is not more than two feet deep in many places above and below the falls, and rises 36 feet perpendicular above the falls opposite to the city; and 60 feet perpendicular rises have been known at the foot of the falls. An appropriation of $150,000, by the U. States, was made last winter, by which the low places in the river are to be improved so as to give four feet of water, in low water, from its mouth to Pittsburg. This improvement will much facilitate the intercourse with Louisville. Louisville has been allowed by travellers and strangers to be one of the greatest thoroughfares in the Union. At least 50,000 passengers arrive here annually from below, and it is reasonable to conclude that half that number pass through it descending. Great bodies of emigrants from the east and north pass through it; and it is not uncommon, in the autumn, to see the streets filled, for days together, with continued processions of *movers*, as they are called, going to the "great west." In former years, Louisville had the character of being unhealthy; but, since the introduction of steam-boat navigation, and the improved methods of living, no town of its size in the U. States has been more healthy: the year 1822, so fatal to the health of the whole valley of the Mississippi, is the last in which any thing like general sickness has been known in this city. The city government consists of a mayor and city council, chosen annually, by the *viva voce* vote of all residents, in their respective wards.

Louse (*pediculus*). These disagreeable and unseemly insects belong to the order *parasita* (Latr.), and are characterized by having six feet formed for walking, a mouth furnished with a proboscis, antennæ as long as the thorax, and the abdomen depressed, and formed of several segments. Almost every species of animal is frequented by its peculiar louse, sometimes by several kinds: even man is subjected to their attacks. They breed with amazing rapidity, several generations occurring in a short period. Certain circumstances appear to be exceedingly favorable to their increase; as infancy, and that state of the system giving rise to *phthiriasis*, or the lousy disease. The human race is infested by several species, among which are the *P. humanus corporis*, or body louse, principally occurring in adults who neglect cleanliness; and the *P. humanus capitis*, or common louse, most frequent in children. Cleanliness is the best antidote against these disgusting intruders. The lousy disease, though now of very rare occurrence, appears to have been by no means unfrequent among the ancients. Herod, Antiochus, Callisthenes, Sylla, and many others, are said to have perished from this disorder. Some nations consider them as a gastronomic luxury, and, at one time, they were used in medicine. Those of our readers who wish for full information on these disagreeable parasites, will find ample details respecting them in the works of Rhedi, Swammerdan and Buonanni, who seem to have studied their habits and manners with great assiduity.

Louthersbourg, or **Lutherburg**, Philip James; a landscape painter of eminence, born at Strasburg, in 1740. He studied under Tischbein, and afterwards under Casanova, and displayed great talents in the delineation of battles, hunting-pieces, &c. After having been admitted a member of the academy of painting at Paris, where he was first settled, he removed, in 1771, to London, where he was employed in the decorations of the opera-house, and also at Drury-lane theatre. He subsequently contrived an exhibition, called the *Eidophusikon*, somewhat on the plan of the *Diorama*, which, however, did not prove a very profitable speculation. In 1782, he was nominated a royal academician; and, as a landscape painter, he possessed deserved celebrity. He also painted some historical pictures, as the Victory of Lord Howe, and the Siege of Valenciennes. His character was eccentric, and he was so far infatuated with the reveries of animal magnetism, as to have accompanied the impostor Cagliostro (q. v.) to Switzerland. He returned to England, and died near London, in 1812.

Louvain (Dutch, *Loeven*, *Leuven*); formerly the capital of one of the four districts of the duchy of Brabant; more lately of a circle in the province of South Brabant, kingdom of the Netherlands; at present belonging to Belgium. Louvain is situated on the river Dyle, and a canal leading from this river to the Rupel, five leagues E. N. E. from Brussels; lat. 50° 53′ 26″ N.; lon. 4° 41′ 54″ E. There are seven churches, five convents, a magnificent hospital, 4000 houses, and 25,400 inhabitants. John IV, duke of Brabant, founded the university in 1426, to which belonged four colleges, a considerable library, a botanical garden, and an anatomical theatre. In the sixteenth century, it contained 6000 students. Having become extinct during the French revolution, it was restored as a lyceum (q. v.), and, Oct. 6, 1817, again formally reëstablished. The number of students is 580. In 1825, a philosophical college for Catholic clergymen was founded, with the intention of raising the standard of learning among the candidates for holy orders; but the clergy were so much against it, that in 1830, when a Catholic minister was appointed for the affairs of Belgium, the philosophical college was abolished. Louvain has greatly contributed to nourish that spirit of opposition, which the Catholic Belgians have manifested towards the government of the Netherlands, and of which the separation of Belgium has been the consequence. In the beginning of the fourteenth century, when the city had 200,000 inhabitants, the woollen manufactures supported 100,000 workmen, many of whom, after the insurrection of 1378, emigrated to England, and founded the English woollen manufactures. The most important article of industry is beer, of which 150,000 casks are exported annually. There are from 10 to 12 lace manufactories. The commerce in corn and hops is considerable. During the late revolution, the inhabitants embraced with ardor the cause of independence, and repelled with courage (Oct. 23, 1830) the attacks of the Dutch.

Louvel, Pierre Louis, the assassin of the duke of Berry, son of a Catholic mercer, was born at Versailles in 1783, and served as saddler in the royal stables. From his youth upwards, he was of a gloomy and reserved disposition, and impatient of contradiction, but industrious and temperate. He often changed his master, and oftener his residence. From all circumstances, it is evident that he was fanatical and eccentric. He hated the Bourbons, and wished to extirpate the family, the duke of Berry in particular, because he was expected to continue the line. Feb. 13, 1820, about 11 o'clock in the evening, when the prince was conducting his wife from the opera to the carriage, Louvel pressed towards him, seized him by the left shoulder, and stabbed him with a knife in his right side. Upon the first cry of the prince, the soldiers of the guards pursued the murderer, who was apprehended and conducted into the guard-room of the opera-house. He was examined in the presence of the minister Decazes, and immediately avowed, that, six years previous, he had formed the resolution of delivering France from the Bourbons, whom he considered the worst enemies of the country; that, after the duke of Berry, he had intended to murder the rest, and, finally, the king. His trial was conducted by the chamber of peers. The investigations continued three months, and 1200 witnesses were examined, in order to discover accomplices. At length Bellart, the attorney-general, declared in the indictment (May 12), that none had been discovered. June 5, Louvel, between his two counsel, was placed at the bar of the chamber of peers, sitting as a court of justice. The chancellor D'Ambray, president of the chamber, examined him. Louvel declared that no personal offence had induced him to commit the murder, but only an exasperation, created by the presence of the foreign troops, as early as 1814; that, in order to distract his thoughts, he had travelled, and visited the island of Elba, but, in that place, had no conference with Napoleon or his attendants; that, after Napoleon's return from Elba, he was taken into service as saddler in the imperial stables, and, hence, had obtained this station in the royal stables. No political party, no individual, had persuaded him to commit this act. He had read no newspapers nor pamphlets. He admitted that his deed was a horrible crime; but stated that he had determined to sacrifice himself for France. Louvel's defenders alleged a *monomania*, or an insanity consisting in a fixed idea, and appealed to the dying request of the prince for the pardon of his murderer. Louvel then read his defence. The high court of justice condemned him to death. After a long delay, he admitted the visit of a clergyman, but, on the day of his execution (July 7, 1820), paid no attention to his words, directing his eyes over the multitude, which witnessed his execution in silence.—See Maurice Méjan's *Hist. du Procès de Louvel, assassin*, &c. (2 vols., Paris, 1820).

Louverture. (See *Toussaint-Louverture.*)

Louvet de Couvray, John Baptist; a French advocate, distinguished as an actor in the revolution. At the commencement of the political commotions, he joined the popular party, and displayed a decided aversion to royalty and nobility. He published a romance, entitled *Emilie de Varmont, ou le Divorce nécessaire* (1791), in support of the prevalent opinions relative to marriage, and spoke at the bar of the national assembly in favor of a decree of accusation against the emigrant princes. In 1792, he was chosen a deputy to the convention, when he attached himself to the party of the Girondists, and voted for the death of Louis XVI, with a proviso, that execution should be delayed till after the acceptance of the constitution by the people. He was denounced by the terrorists, and included in an order of arrest issued June 2, 1794. Having escaped from the capital, he retired to Caen, with several of his colleagues, and employed himself in writing against the Jacobins. He was declared an outlaw; on which he fled to Brittany, and thence to the department of the Garonne. At length he separated from his companions, and returned to Paris, where he kept himself concealed till after the fall of Robespierre. He subsequently published an account of his adventures during the time of his proscription, entitled *Notices sur l'Histoire et le Récit de mes Périls*—a work written in a romantic style, which has been translated into English and other languages. Louvet recovered his seat in the convention in March, 1795, and he occupied the presidency in June following. He was afterwards a member of the council of five hundred, which he quitted in May, 1797, and died at Paris, August 25 of that year. He is chiefly known in literature as the author of a licentious novel—*La Vie du Chevalier Faublas.*

Louvois, François Michel Letellier, marquis of, minister of war to Louis XIV, son of the chancellor Letellier, born at Paris in 1641, was early made a royal counsellor through the influence of his father. He displayed so little inclination for business, and so great a love of pleasure, that his father threatened to deprive him of the reversion of the secretariship in the war department, which had been conferred on him at the early age of 13. From this moment young Louvois abandoned his habits of dissipation, and devoted himself to business. After 1666, he had the whole management of the ministry of war, and soon exercised a despotic control over his master and over the army. His extensive knowledge, his decision, activity, industry and talents, rendered him an able minister; but he cannot aspire to the praise of a great statesman. He was too regardless of the rights of human nature; too lavish of the blood and treasure of France; too much of a despot, to deserve that honorable appellation. His reforms in the organization of the army; his manner of conducting the wars of his ambitious master, if they were not rather his own; and, above all, his successes, render his administration brilliant.—See Audouin's *Histoire de l'Administration de la Guerre* (Paris, 1811.)—But, justly appreciated, Louvois must be considered as the evil genius of the showy but disastrous reign of Louis XIV. While the king was flattered with the idea of having formed the young minister, and of directing his government in person, every thing was, in fact, done by Louvois, and according to his views. The generals were all required to communicate immediately with him; and, although Turenne would not submit to this order, yet the king showed all his letters to his minister, and answered them according to his suggestions. Bold and grasping schemes, which could be executed only by the unwearied activity and industry of Louvois, were proposed by him for the purpose of rendering himself necessary to Louis, who, he was conscious, disliked him personally. Hence, notwithstanding the solemn renunciations of all claims to Franche-Comté and the Spanish Netherlands (see *Louis XIV*, and *France*), war was undertaken (1667 and 1669) to get possession of them. The war of 1672, against Holland, was begun at the instigation of Louvois, and would have been finished much sooner, had he not, contrary to the wishes of Condé and Turenne, insisted upon occupying the fortresses, and thus given the Dutch time to open their sluices. The victories of Turenne (q. v.), in 1674 and 1675, were gained by a disobedience of the orders of the minister of war; but the desolation of the Palatinate was commanded by him. The system of *réunion*, as it is called (see *Louis XIV*), was now adopted, and Louvois took possession of Strasburg, in the time of peace (1680). On the death of Colbert (1683), of whom he had been the enemy, his influence became still greater, and one of its most fatal effects was the revocation of the edict of Nantes (1685), the *dragonnades*, and the consequent flight of so many peaceful and industrious Calvinists. Louvois was now superintendent of the royal buildings, and, on occasion of a dispute with the king about the size of a window, in which the latter had spoken severely to him, "The king," said the minister, "begins to meddle with every thing; we must give him something to do; he shall have a war;" and a pretext was soon found. The system of *réunion* had united the European powers in the league of Augsburg; and it was determined to seize on Philipsburg, one of the bulwarks of Germany. This was done with so much secrecy as to prevent the place being relieved. The French arms were successful, but disgraced by the horrid burnings and devastations committed by the direction of Louvois. The Palatinate was reduced to a wilderness in mid-winter (1689). The war was conducted with great ability by Louvois; but his arrogance had long rendered him odious to Louis. The king's dislike had been increased by the cruel devastations of the Palatinate, and when the minister proposed to him to complete the desolation by the burning of Treves, he refused his consent. Louvois replied, that, to spare his majesty's conscience, he had already despatched a courier with orders to that effect. Louis, filled with indignation, was prevented from striking his minister only by the interference of madame de Maintenon. Soon after, on presenting himself at the royal council, he discovered, or fancied he discovered, in the countenance and words of the king, marks of severity, and was obliged by faintness to retire to his hôtel, where he died within half an hour. Whatever may be our feelings at the arrogance, cruelty and despotism of Louvois, we cannot deny him the merit of having organized the brilliant victories of the reign of Louis.

Louvre; the old royal palace at Paris, on the north bank of the Seine, a splendid quadrangular edifice, with a court in the centre, completed by Napoleon. The origin of its name, and the time of the erection of the oldest part of it, are unknown. We only know that Philip Augustus, in 1214, built a fort and a state prison in this place; that Charles V, during the years 1364—80, added some embellishments to the building, and brought his library and his treasury thither; and that Francis I, in 1528, erected that part of the palace which is now called the *old Louvre*. Henry IV laid the foundation of the splendid gallery which connects the Louvre, on the south side, with the Tuileries; Louis XIII erected the centre; and Louis XIV, according to the plan of the physician Perrault, the elegant façade towards the east, together with the colonnade of the Louvre, which, even now, is the most perfect work of architecture in France. At a later period, Louis XIV chose the palace built by him at Versailles for his residence. After Napoleon had taken possession of the Tuileries, he began a second gallery, opposite to the former, by which the two palaces would have been made to form a great whole, with a large quadrangular court in the centre; only 600 feet of it were completed at the time of his abdication, and it has not since been continued. Since the revolution, the collection of antiquities has been kept in the lower floor of the Louvre. Here, also, the exhibitions of national industry take place, and the academies hold their sessions.—*To have the privilege of the Louvre*, formerly meant, in France, a permission to drive, with a coach, into the courts of all the royal palaces. At first, this was the prerogative of the princes only; but, in 1607, when a duke, under the pretence of indisposition, rode into the Louvre, Henry IV gave him (and, in 1609, the duke of Sully also) permission constantly to do so. At last, during the minority of the king Louis XIII, all the high officers of the crown, and dukes, obtained this privilege from Mary of Medici.

Lovat (Simon Frazer), commonly called lord; a Scottish statesman, born in 1667. He was educated in France, among the Jesuits, and, returning to his native country, he entered into the army, and, in 1692, he was a captain in the regiment of Tullibardine. After having committed some acts of violence in taking possession of his hereditary estate, he fled to France, and gained the confidence of the old pretender, which he made use of, on his return to Scotland, in order to ruin his personal enemies. He again went to France, where he was imprisoned in the Bastile, and was liberated only on condition of taking religious orders, in pursuance of which engagement he is said to have become a Jesuit. In 1715, he a second time betrayed the pretender, and he was rewarded by the government of George I with the title of Lovat, and a pension. He now led a quiet life, uniting in his own person the contradictory characters of a Catholic priest and a father of a family, a colonel and a Jesuit, a Hanoverian lord, and a Jacobite laird. Notwithstanding the favors he had received, he engaged in the rebellion in 1745; and, after having displayed his usual craft and audacity, he was finally seized, tried, condemned, and executed in April, 1747, at the age of 80. Notwithstanding his age, infirmities, and a conscience supposed to be not wholly void of offence, he died, says Smollett, like a Roman, exclaiming, *Dulce et decorum pro patria mori.* A volume of autobiographical memoirs, by this restless and unprincipled politician, was published in 1797 (8vo.).

Love-Feast. (See *Agape.*)

Lovelace, Richard, a poet of the seventeenth century, was born about 1618, and educated at Oxford. On leaving Oxford, he repaired to court, entered the army and became a captain. He expended the whole of his estate in the support of the royal cause, and, after entering into the French service, in 1648, returned to England, and was imprisoned until the king's death, when he was set at liberty. His condition was, at this time, very destitute, and strongly contrasted with Anthony Wood's gay description of his handsome person and splendid appearance in the outset of life. He died in great poverty, in an obscure alley, in 1658. His poems, which are light and elegant, but occasionally involved and fantastic, are published under the title of *Lucasta*, under which name he complimented Miss Lucy Sacheverell, a young lady to whom he was attached, who, on a false report of his death, married another person. Colonel Lovelace, who, for spirit and gallantry, has been compared to sir Philip Sidney, also wrote two plays, the Scholar, a comedy, and the Soldier, a tragedy.

Lover's Leap; the name of a cliff, 144 feet high, in the island of Leucadia (q. v.).

Low Countries. (See *Netherlands.*)

Low Dutch and High Dutch; used improperly for *Dutch* and *German.* The two languages are quite distinct, so that a German and a Dutchman cannot understand each other any better than a Frenchman and a German. In fact, the Dutch language resembles the English more than it does the German, so that a German understands it much easier, if he has a knowledge of English. The reason is, that both, Dutch and English, are mainly derived from the Low German. The frequent confusion of the terms *Dutch* and *German* probably arises from the circumstance, that the proper name of German is *Deutsch*, and that of Germany, *Deutschland*, and that the Germans and Dutch were originally considered as one nation by the inhabitants of England. (See *Dutch*, and *Low German.*)

Low Water; the lowest point to which the tide ebbs. (See the article *Tide.*)

Lowell; 25 miles N. W. from Boston; noted for the extent of its water power, its manufacturing establishments, and the rapidity of its growth; situated at the junction of the Concord and Merrimack rivers; bounded by the former on the east, and the latter on the north; Indian name, *Wamasit;* the seat of a tribe of *praying* Indians, at the breaking out of Philip's war, in 1675; incorporated in 1826; named from Francis C. Lowell, of Boston, who was distinguished by his successful efforts in introducing the cotton manufacture into the U. States. The hydraulic power of Lowell is produced by a canal, completed in 1823, 1½ mile in length, 60 feet wide, and carrying 8 feet in depth of water. A portion of the waters of the Merrimack is forced through this canal by a dam at the head of Pawtucket falls, and is distributed in various directions, by channels branching off from the main canal, and discharging into the Concord and Merrimack rivers. The entire fall is 30 feet, and the volume of water which the canal is capable of carrying, is estimated at 1250 cubic feet per second, furnishing 50 mill powers of 25 cubic feet per second each. In some instances, the whole power is used at one operation, applied to wheels of 30 feet diameter; but more frequently the power is divided into two distinct falls of 13 and 17 feet each. The water power is held and disposed of by a company, holding a large amount of real estate, with a capital of $600,000.

Manufacturing Establishments now in Operation.

Name.	Capital.	No. of Mills.	Manufacture.
Merrimack co.,	$1,500,000,	5, with bleaching and print works.	printed calicoes.
Hamilton co.,	800,000,	3, with bleaching and print works.	twilled cotton, pantaloon stuffs, shirtings.
Appleton co.,	500,000,	2	coarse shirtings and sheetings.
Lowell co.,	400,000,	2	negro cloths, carpetings.
Woollen factory,			broadcloths, cassimeres, &c.

New Works, erecting by Companies which have been organized.

Suffolk co.,	450,000,	2 mills,	coarse cottons.
Tremont mills,	500,000,	2	cottons.
Lawrence co.,	1,200,000,	4	printed cottons.

The quantity of cotton manufactured at Lowell, in 1831, is estimated at 17,000 bales, of 300 pounds each. Population, by the census of 1830, 6477; churches, 8; viz. Congregational 3, Episcopal 1, Baptist 1, Methodist 1, Universalist 1, Roman Catholic 1; 2 banks. A charter for a rail-road from Boston to Lowell was granted in 1830; the capital for which, $600,000, has been subscribed, to be undertaken as soon as surveys are completed.

Lőwendal, Ulrich Frederic Woldemar, count of, great grandson of Frederic III, king of Denmark, born 1700, at Hamburg, began his military career in Poland (1713), became captain in 1714, and entered the Danish service, as a volunteer, during the war with Sweden. In 1716, he served in Hungary, and distinguished himself at the battle of Peterwardein, and at the sieges of Temeswar and Belgrade. He next took part in the wars in Sardinia and Sicily, and was present at all the battles from 1718 to 1721. During peace, he studied gunnery and engineering, and was made field-marshal and inspector-general of the Saxon infantry in the service of Augustus, king of Poland. The death of this monarch (1733) gave him an opportunity of distinguishing himself by his valiant defence of Cracow. Having entered the service of the empress of Russia, she was so well satisfied with his conduct in the Crimea and Ukraine, that she appointed him commander of her forces. In 1743, he was made lieutenant-general in the French service, and, at the sieges of Menin, Ypres and Friburg, was conspicuous for his courage and skill. In 1745, he commanded the corps of reserve at the battle of Fontenoy, in which he took an honorable share. After having taken many strong places in Flanders, he obtained possession of Bergen-op-Zoom, by storm, September 16, 1747. This place, till then, had been considered impregnable, and was occupied by a strong garrison, and covered by a formidable army. The following day, he received the staff of marshal. He died 1755. Lőwendal was thoroughly acquainted with engineering, geography and tactics, and spoke Latin, German, English, Italian, Russian and French, with fluency. With these accomplishments, he combined modesty and amiableness of disposition, though a devotee of pleasure, like the marshal Saxe, his most intimate friend, whom he also resembled in his application to military studies.

Lower Empire (Bas Empire); a term applied to the Roman empire during the period of its decline. From the establishment of the seat of government at Byzantium (Constantinople), and the division of the empire into the Eastern and Western, the former is often called the *Byzantine* (q. v.) empire, and, after the restoration of the Western or Latin empire, under Charlemagne, the *Greek* empire. Lebeau's *Histoire du Bas Empire* begins with the reign of Constantine. Gibbon's Decline and Fall of the Roman Empire embraces the whole period.

Low German (in German, *Plattdeutsch*, *Niederdeutsch*, *Niedersächsisch*; since the sixteenth century, also *Sassisch*) is that softer German dialect, which was formerly spoken over a great part of Germany, and even now is the language of the common people in most parts of North or Lower Germany, and many of the educated rank use it when they wish to be very familiar, or when they address people of the classes before mentioned. In some legal forms, it has maintained itself; thus the Hamburg oath of citizenship is in Low German. Recently, more attention has been directed to this interesting dialect. It is not, as is sometimes supposed, a corrupted language, but a distinct dialect, as much so as the high German, though circumstances have caused the latter to become the language of literature and the educated classes. (See the division *German Language*, in the article *Germany*; also *Dialect.*) It is difficult to decide which of the two dialects, High and Low German, is the more ancient. Probably, in very remote times, soon after the first Asiatic tribes had entered Germany, two chief dialects were formed—a softer and a harsher—whilst one of the Asiatic nomadic tribes went northward, and the other inclined to the south, along the Danube. Diversities of climate, soil and way of living, may soon have exerted an important influence on the dialects of the tribes. The rough and woody mountains of the south of Germany, and the warlike occupations of the dwellers on the banks of the Danube, gave roughness and sharpness to the speech of this region, whilst the open and plain country of the north produced milder manners and a softer language. Yet an entire separation of these two dialects could not take place as long as the tribes speaking them led a nomadic life; and, even after they had formed permanent settlements, much similarity must have remained for a considerable time. Hence we find, in the most ancient records of the German language, a constant mixture of both the chief dialects. (See the article *Anglo-Saxon.*) The time of their separation is not to be fixed with certainty. So much, however, is clear, that both dialects, for a long time, were mixed, and, after their total separation, existed for a long time independently of each other—the harsher dialect in the southern part of Germany, in Austria, Bavaria, Franconia, Suabia, on the Upper Rhine, and in part of Upper Saxony; the smoother in the north of Germany, Lower Saxony, Westphalia, on the Lower Rhine, and in all Belgium. The long and extended dominion of the Low German dialect is proved by the number of idioms derived from it. Of these the most important are, 1. the Anglo-Saxon (q. v.); 2. the Norman; 3. the Dutch, so called since the thirteenth century ; 4. the Icelandic ; 5. the Norwegian ; 6. the Swedish ; 7. the Low Saxon, as spoken at present. That the High German attained, nevertheless, at an early period, a somewhat superior standing, was chiefly owing to the circumstance, that the higher intellectual cultivation of Germany must be dated from the period of the Hohenstaufen (q. v.) or Suabian emperors, and with them, consequently, the High German gained the ascendency. When, on the other hand, in the latter part of the twelfth century, at the time of the emigration from Holland into Germany, the Low German had become enriched from the Belgian dialect of the emigrants, and the Hansa produced so much activity in the North, Low German also became, for some time, a literary language, and affords works of much repute, particularly the incomparable Renard the Fox. (q. v.) But Luther's translation of the Bible gave predominance to the High German, and a natural consequence was, that, whilst this became the exclusive language of literature, Low German was checked in its developement, and was obliged to give way to its rival in courts, churches, schools, and the circles of the well educated. In a few parts of the country, only, it maintained its ground in works both of a spiritual and secular character, down to the beginning of the sixteenth century, as in Pomerania, Mecklenburg, Westphalia. As the language of the people, Low German still exists, but in a great number of different dialects, which, in several respects, differ considerably. A supercilious disparagement of this dialect, as if it were a mere corruption of the High German, has led many German scholars to neglect it entirely ; and they have thus fallen into etymological and other mistakes, from ignorance of this essential branch of their language. Leibnitz recommended the study of it as a means of enriching, correcting and explaining the High German ; and, of late, the scholars of Germany have begun to turn their attention to this idiom. The study of it is essential even to the English etymologist, to enable him properly to understand his own language, as far as it is of Teutonic origin. J. H. Voss made the attempt to revive this dialect, by several excellent poetical compositions in it. The most has been done, however, by Charles F. A. Scheller, who has lately published a series of Low German works, or such as are conducive to a knowledge of Low German literature ; among them an edition of Renard the Fox ; also the *Shigt-Bôk der Stad Brunswyk*, as a supplement to *G. G. Leibnitii Scriptores Rerum Brunsvigensium* (Brunswick, 1829) ; *Der Laien Doctrinâl* (Brunswick, 1825) ; *Bücherkunde der Sassisch-Niederdeutschen Sprache* (Literature of the Sassic-Low German Language) (Brunswick, 1826). In the preface to the *Laien Doctrinâl*, Mr. Scheller speaks of having made use of nearly 2000 Sassic writings, for a dictionary of this dialect, which he was preparing. The *Versuch eines Bremish-Niedersächsischen Wörterbuchs* (5 vols., Bremen, 1771) ; the *Holstein Idioticon* of Schützel ; the *Geschichte der Nieder-Sächsischen Sprache von Johann Friedrich August Kinderling* (Magdeburg, 1800); the *Versuch einer plattdeutschen Sprachlehre mit besonderer Berücksichtigung der Mecklenburgischen Mundart von J. Musæus* (New Strelitz and New Brandenburg, 1829), deserve mention.

Lowlands ; a term applied to the south parts of Scotland, in contradistinction to the *Highlands*, which comprise the northern and western parts. (See *Highlands*, and *Scotland*.)

Lowry, Wilson, F. R. S., a modern English engraver of eminence, was born in January, 1762. After studying medicine for some years, he devoted himself to engraving. He is the inventor of a ruling machine, possessing the property of ruling successive lines, either equidistant or in just gradation, from the greatest required width to the nearest possible approximation ; also of one capable of drawing lines to a point, and of forming concentric circles. In 1798, he first introduced the use of diamond points for etching—an invention highly important, on account of the equality of tone produced by them, as well as of their durability. Many other useful improvements in engraving were also discovered by him, and he was the first person who succeeded in what is technically termed "biting steel in" well. Messrs. Longman's edition of doctor Rees's Cyclopædia, commenced in 1800, for nearly 20 years occupied a considerable portion of his time. He also labored for Wilkins's *Vitruvius*, and *Magna Græcia*, Nicholson's Architectural Dictionary, and, lastly, the *Encyclopædia Metropolitana*, on which he was employed till his last illness. He died June 23, 1824. His *chef-d'œuvre* is considered to be an engraving from the Doric portico at Athens, in Nicholson's Architecture. He was elected a fellow of the royal society in 1812.

Lowth, Robert, a distinguished English prelate, was born at Buriton, in 1710. He received his education at Winchester school, whence he was elected, in 1730, to New college, Oxford, of which he was chosen a fellow in 1734, and, in 1741, was elected professor of poetry in the university of Oxford. In 1753, he published his *De sacra Poesi Hebræorum Prælectiones Academicæ* (4to.), which has been translated into English, French and German. The best edition is that of Leipsic, 1815, with notes by Michaelis Rosenmüller, &c. In 1754, he received the degree of D. D. from the university of Oxford, by diploma, and, in 1755, went to Ireland, as chaplain to the marquis of Hartington, appointed lord lieutenant, who nominated him bishop of Limerick, which preferment he exchanged for a prebend of Durham, and the rectory of Sedgefield. In 1758, was published his Life of William of Wykeham (8vo.), which, in 1762, was followed by a Short Introduction to the English Grammar. In 1756, a misunderstanding took place between doctors Lowth and Warburton, the latter of whom took offence at certain passages in the *Prælectiones*, concerning the book of Job, which he believed to be aimed at the theory of his Divine Legation of Moses. Warburton, in an Appendix concerning the Book of Job, added to the 2d edition of his Divine Legation, indulged in the acrimony by which he was distinguished, and thereby produced a reply from doctor Lowth, in a Letter to the Right Reverend the Author of the Divine Legation of Moses, which has become memorable at once for the ability and severity of its criticism. The ultimate silence of the Warburtonians gave the victory to their antagonists. In 1766, doctor Lowth was appointed bishop of St. David's, whence, in a few months afterwards, he was translated to the see of Oxford. In 1777, he succeeded to the diocese of London, and the next year published the last of his literary labors—Isaiah, a New Translation, with a preliminary dissertation and notes. Rosenmüller says he understands and expresses the Hebrew poet better than any other writer. On the death of archbishop Cornwallis, the primacy was offered to doctor Lowth, but he declined that dignity, in consequence of his age and family afflictions. He died November 3, 1787, aged 77.

Loxodromic Curve, or **Spiral**; the path of a ship, when her course is directed constantly towards the same point of the compass, thereby cutting all the meridians at the same angle. (See *Rhumb Line.*)

Loyola, Ignatius (or, in Spanish, Inigo) de, a saint of the Roman Catholic church, founder of the society of Jesuits, was born in 1491, in the castle of Loyola, in the Spanish province Guipuscoa, the youngest of the 11 children of a Spanish nobleman. Ignatius spent his youth at the court of Ferdinand V (surnamed the Catholic), king of Arragon. Till his 29th year, he served in the army, was distinguished for bravery, gallantry and vanity, and made indifferent verses. At the siege of Pampeluna by the French, he was wounded in both legs, one of which, being crooked after the cure, he caused it to be broken again, for the purpose of having it made straight. During the siege, he had shown great valor and firmness, and, when the commander wished to surrender, in consequence of want of provisions, he alone opposed it. As soon as the soldiers saw him fall, they surrendered. During his sickness, Ignatius beguiled his time with books, and, as there were no romances in the house, he read a Spanish translation of the life of the Savior, by Landolphus, a Carthusian, and a volume of the Lives of the Saints. His imagination was highly excited by these books. What others had done, as was recorded in those biographies, he thought he might do also, as he afterwards said himself. He determined to live a life of abstinence, penitence and holiness. The Virgin, he thought, appeared to him, with the holy Infant in her arms, both regarding him with looks of benign complacency and encouragement. His brother Martin Garcia observed the change which had taken place in him, and endeavored to dissuade him from his purpose, entreating him to remember his illustrious birth, and the reputation which he had already obtained; but Ignatius was firm. Leaving his brother at a sister's house, in Onate, he proceeded to Navarretta, where he collected some debts, and, having paid his servants and all his creditors, gave the rest for the restoration of the picture of the Virgin, and proceeded alone, upon his mule, to Montserrat. A Moor overtook him, who, in their conversation, uttered an opinion respecting the Virgin, which appeared to Ignatius blasphemous, and, while the Moor, luckily for himself, pricked forward, Loyola deliberated whether it was not his duty to follow and stab him. The Moor had gone to a village off the road, and Ignatius let his mule choose his own way, with the intention of killing the infidel, if the mule should carry him to the village; but it was not so ordered, and he arrived at Montserrat. Here he consecrated his arms to the Virgin, declared himself her knight, and proceeded to the hospital at Manresa, a small place not far from Montserrat, where he fasted rigorously, scourged himself, neither cut his nails nor combed his hair, and prayed seven hours a day. He begged his bread, bread and water being his only food, and, eating very sparingly, he gave what remained to others. In the condition to which he was thus reduced, visions haunted him, and tempted him. Recollections arose of his birth and breeding, his former station, his former habits of life,—these compared with his present situation, in a hospital, in filth and in rags, the companion of beggars! This temptation he at once quelled and punished, by drawing closer to the beggar at his side, and courting more familiarity with him. He then shrunk from the prospect of living in this painful, and, as he could not but feel it to be, beastly life, till the threescore and ten years of mortal existence should be numbered: Could he bear this? The question, he thought, came from Satan: to Satan he replied triumphantly, by asking him if it was in his power to ensure life to him for a single hour; and he comforted and strengthened himself by comparing the longest span of human life to eternity. It is affirmed that, at this time, he was entranced from one Sunday to another, lying, all that while, so apparently lifeless, that certain pious persons would have had him buried, if others had not thought it necessary first to ascertain whether he were dead, and, in so doing, felt a faint pulsation at the heart. He awoke from this ecstasy, as from a sweet sleep, sighing forth the name of Jesus. Orlandini says it is a pious and probable conjecture, that, as great mysteries were revealed to Paul, when he was wrapt into the third heaven, so, during these seven days, the form and constitution of the society, which he was to found, were manifested to Ignatius. It is pretended that he retired from Manresa to a cave in a rock, not far from that city. The cave was dark, and not unlike a sepulchre, but, for this incommodiousness, as well as for its solitude, and the beauty of the narrow vale, where thorns and brushwood concealed it, the more agreeable to him. Having remained some ten months at Manresa, a city which, his biographers say, he undoubtedly regards with peculiar favor in heaven, as the cradle of his Christian infancy, and the school of his first evangelical discipline, he determined upon going to Jerusalem, less for the desire of seeing those places which had been hallowed by the presence of our Lord than in the hope of converting some of the infidels, who were masters of the holy land, or of gaining the palm of martyrdom in the attempt, for of this he was most ambitious. A dangerous passage of five days brought him to Gaëta, from whence he proceeded to Rome on foot. This was a painful and perilous journey. It was seldom that he was admitted into a town, or under a roof, for fear of the plague, his appearance being that of a man who, if not stricken with the disease, had recently recovered from it; and, for the most part, he was fain to lie down, at night, in a porch, or in the open air. He reached Rome, however, where there was either not the same alarm, or not the same vigilance. At Venice, he begged his bread, and slept on the ground, till a wealthy Spaniard, recognising him for a countryman, took him to his house, and afterwards introduced him to the doge, from whom he obtained a free passage to Cyprus. From Jaffa, he proceeded, with other pilgrims, to Jerusalem, in the usual manner; and, when they alighted from their asses, on the spot where the friars were waiting with the cross to receive them, and when they had the first sight of the holy city, all were sensible of what they deemed an emotion of supernatural delight. He now began his return to Spain, more unprovided even than he had left it. No difficulty occurred in re-crossing to Cyprus. He had obtained a good character from his fellow-pilgrims, and they, having taken their passage from that island in a large Venetian ship, besought the captain to give him a passage, as one for whose holy conversation they could vouch. The Venetian captain was no believer in such holiness, and he replied, that a saint could not possibly want a ship to convey him across the sea, when he might walk upon the water, as so many others had done. The master of a smaller vessel was more compassionate; and this, though so much less sea-worthy than the other that none of the other pilgrims embarked in her, reached Italy safely, after a perilous voyage, while the other was wrecked. He had been warned of the danger to which he would be exposed, in travelling from Ferrara to Genoa, where the French and Spanish armies were in the field, by both which he must pass, with the likelihood of being apprehended as a spy by both. Some Spanish soldiers, into whose company he fell, pointed out another route. But Ignatius liked to put himself in the way of tribulation; the more suffering, the greater merit, and, consequently, the more contentment; and he was contented accordingly, when, upon attempting to enter a walled town, which was in possession of the Spaniards, he was seized and searched as a spy. The journey to Jerusalem, notwithstanding all the hardships which he endured in it, had so greatly improved his health, that he thought the relaxation of austerity in his course of life, which had been enjoined him as a duty, had ceased to be allowable, having now ceased to be necessary. He did not, indeed, resume his former mode of apparel, in its full wretchedness; but he clad himself as meanly as he could, and cut the soles of his shoes in such a manner as to let the gravel in, and also to prepare for himself a further refinement of discomfort, for the fragments of sole which he had left, were soon worn away, while the upper-leather remained, and thus he contrived to walk, in winter, with his bare feet on the earth, and yet no one suspected that he was thus meritoriously afflicting himself. In 1524, he returned to Barcelona, and began to study grammar. After a residence of two years, he went to the university of Alcala, where he found some adherents; but the inquisition imprisoned him for his conduct, which appeared strange, and rendered him suspected of witchcraft. He was not delivered from the prison of the holy office until 1528, when he went to Paris to continue his studies, the subjects of which, indeed, were only works of an ascetic character. Here he became acquainted with several Spaniards and Frenchmen, who were afterwards noted as his followers; as Lainez, Salmeron, Bovadilla, Rodriguez, Pierre Favre, and others. (See *Lainez*, and *Jesuits*.) They conceived the plan of an order for the conversion of heathens and sinners, and, on Ascension day, in 1534, they united for this great work in the subterranean chapel of the abbey of Montmartre. Some of these men had not yet finished their theological studies, and, until this should take place, Ignatius returned to Spain. They then met again in 1536, at Venice, whence they proceeded to Rome, and received the confirmation of their society from pope Paul III. They took the triple vow of chastity, obedience and poverty, in the presence of the papal nuncio Veralli at Venice. (For the history of the order, and its final abolition in most countries, see article *Jesuits*.) The account of the origin of its name, given by Lainez, adopted by the society, and recorded by them upon a marble tablet, is, that Ignatius, losing his bodily senses, saw himself surrounded with the full splendor of heaven; saw the Father beholding him with an aspect full of love, the Son bearing his cross, and pointing to the marks of his passion; heard the Father earnestly recommend him to the Son; saw himself benignantly accepted by the Son, and heard these words from the lips of the Son, *Ego vobis Romæ propitius ero.* Therefore it was, according to Lainez, that he gave his order the name of the *Society of Jesus.* In 1541, Ignatius was chosen general of the society; but Lainez, his successor, must be considered, even from the commencement, as the person who gave to the order the organization, by which it has astonished the world, though Ignatius, by his ardent zeal, may have given it a great impulse. Ignatius continued his abstinence and penances during life. Even when general, he used to perform the meanest labors in his church in Rome, instructed little children, though not master of the Italian, and collected alms for the Jews and public women, for whose conversion he displayed great zeal. He died July 28, 1556, exhausted by fatigues. Forty-three years after, he was declared *beatus* by Paul V, and Gregory XV canonized him. His feast in the Catholic church falls upon July 31. There are two works of Loyola, his Constitution of the Order, in Spanish, praised by cardinal Richelieu as a masterpiece; and his Spiritual Exercises, also in Spanish (Rome, 1548),—a work, the first plan of which was drawn up in the hospital at Manresa. It has been often translated. Among his biographers, we may mention Maffei, Bouhours and Ribadeneira. Of the miracles attributed to him, at a later period, his contemporary Ribadeneira says nothing, as Bayle remarked.

Lubber, a contemptuous name, given by sailors to those who know not the duty of a seaman.

Lubber's-Hole is the vacant space between the head of a lower mast and the edge of the top. It is so termed from a supposition that a lubber, not caring to trust himself up the futtock shrouds, will prefer that way of getting into the top.

Lűbeck, formerly the chief of the Hanseatic towns, at present one of the four free cities of the German confederacy, officially styled the "republic and free Hanseatic city of Lűbeck," was founded by Adolphus II, count of Holstein-Schaumburg, in 1144, who, 10 years afterwards, ceded it to Henry the Lion, duke of Saxony. Henry made it a free port for the northern nations, granted it municipal privileges, which were confirmed by several emperors, and gave it the celebrated Lűbeck code, which was afterwards adopted by many German cities. In 1226, it became a free city of the empire, and was afterwards at the head of the Hanseatic union (see *Hansa*); its fleet commanded the Baltic; Gustavus Vasa found refuge within its walls from Christian II; and its voice decided the affairs of the kingdoms of the North. Lűbeck contains 22,000 inhabitants, and is beautifully situated on an island between the Trave and the Wackenitz, on a slight elevation. The ramparts now serve as a promenade. The houses are substantially built, of stone, but old-fashioned. Since 1530, the Lutheran doctrines have prevailed. Lűbeck was formerly a bishop's see, and the cathedral contains many tombs and monuments of antiquity. The church of St. Mary is remarkable for the beautiful altar by Quellino, for its astronomical clock, and the allegorical paintings, called the Dance of Death. There are also a Calvinistic and a Catholic church. The charitable institutions are in an excellent condition, as is also the gymnasium of seven classes. A drawing-school for mechanics, a commercial institute, a society for the promotion of industry, and other societies and institutions, prove the public spirit of the citizens. Lűbeck, which, by its situation, is connected with the North sea and the Baltic, has an important carrying trade between Germany and the countries on the Baltic, and carries on a considerable commerce in wine, leather, flax and corn. It maintains important banking operations with Hamburg, Rostock, Copenhagen and Petersburg. There are also two insurance companies and an exchange; and about 70—80 ships are owned by the citizens. In 1817, above 900 ships arrived at Lűbeck; yet commerce and business have much declined. By the Stecknitz, which falls into the Trave above the town, and which is connected, by the Dolwenau, with the Elbe, the latter river is accessible from Lűbeck, and much of the merchandise from the Baltic passes by Lűbeck for Hamburg. Lűbeck has sugar-refineries, tobacco, leather, starch-works, gold and silver lace, hat, cotton and woollen manufactures, &c. The territory of the town, consisting of Bergedorf and the Vierlands (which belong to Lűbeck in common with Hamburg), is 116 square miles with 18,000 inhabitants. To this territory belongs the small town of Traveműnde, situated at the mouth of the Trave, with a harbor and baths. When the constitution of the empire was abolished, in 1806, Lűbeck, though disconnected from the rest of Germany, remained a free Hanseatic city. After the battle of Lűbeck (Nov. 6, 1806), Blűcher finished his retreat by the capitulation of Ratkau. 9500 Prussians and 1500 Swedes were taken prisoners, and Lűbeck was pillaged. In 1810, it formed a part of the French department of the mouths of the Elbe. By the congress of Vienna, Lűbeck was again declared a free city. The government consists of four burgomasters and 16 counsellors. The body of citizens is divided into 12 guilds, each of which has one vote. The revenue is about 400,000 guilders; the debt, 3,000,000. In the German diet, Lűbeck has one vote, with the three other free cities; and in the plenum, one vote. The contingent is 406 men. Lűbeck is the seat of the supreme court of appeal of the four free cities. In 1827, a convention of friendship, navigation and commerce was concluded between the U. States and the republics and free Hanseatic cities of Lűbeck, Bremen and Hamburg, on the principles of reciprocity. (*Am. Annual Register*, iv.)

Luca Giordano (also called *Luca Fa Presto*). (See *Giordano*.)

Lucanus, Marcus Annæus; a Roman poet, born at Corduba, in Spain, about A. D. 38. His father, a Roman knight, was the youngest brother of the philosopher Seneca. Lucan went to Rome when a child, where he was instructed by the ablest masters in philosophy, grammar and rhetoric. Seneca introduced him into public life. He obtained the dignity of a questor before he was of lawful age, and entered the college of augurs. Having obtained some celebrity by several poems, he excited the jealousy of Nero, who aspired to the reputation of a great poet. The latter, on a certain occasion, had recited a poem upon the history of Niobe, before a numerous assembly, and obtained great applause, when Lucan ventured to enter the lists as his rival, with a poem upon Orpheus, and the auditors adjudged him the superiority. From that time, Nero looked upon Lucan with hatred, forbade him to make his appearance in public, and spoke of his works with derision and contempt. This induced Lucan to conspire against him, with several distinguished persons, of whom Piso was the head. The plot was discovered, and Lucan, who, according to the assertion of an old grammarian, was so unnatural as to inform against his own mother as accessary, was condemned to death. He chose the death of his uncle, and had his veins opened. He died in the 27th year of his age. Of his poems, only his Pharsalia has come down to us, in which he narrates the events of the civil war between Cæsar and Pompey. The poem is unfinished, and is frequently disfigured with harshness and obscurity in the expression, rhetorical bombast, and exaggerated figures; but these defects are, at least in part, compensated by a nobleness of sentiment and a love of freedom, which run through the whole work, and some passages are truly poetical. The best editions are the Variorum (Leyden, 1658, 8vo.), Oudendorp's (Leyden, 1728, 2 vols., 4to.), Burmann's (Leyden, 1740, 4to.), and Weder's, with the notes of Bentley and Grotius (Leipsic, 1819, 2 vols.) Lucan has been translated into English by Rowe.

Lucayas. (See *Bahamas.*)

Lucca; a city and duchy in Italy, originally a colony of the Romans, which, on the fall of the Lombard kingdom (774), was added, by Charlemagne, to his territories, and annexed by Otho I (the Great) to his German dominions. During the middle ages, it was repeatedly sold by its masters, on account of the liberal principles of its citizens. Louis of Bavaria appointed the brave Castruccio Castracani duke of Lucca, but this dignity became extinct at his death. After many changes of its tyrants, having been sold to Florence, Lucca finally obtained its freedom, in 1370, of the emperor Charles IV, for 200,000 guilders. Though often at war with Florence, it maintained its independence until the time of Napoleon, under the government of a *gonfaloniere* and a council. The French obliged it to adopt a new constitution, and, in 1797, it was united with Piombino, and given to Bacciocchi, brother-in-law of Napoleon, as a principality. In 1815, the Austrians took possession of it, and, by an act of the congress of Vienna, it was granted to the Infanta Maria Louisa, daughter of king Charles IV of Spain, and widow of the king of Etruria, with the title of a duchy, and with complete sovereignty. To the revenue of the country (700,000 guilders), an annuity of 500,000 francs was added, which Austria and Tuscany bound themselves to pay. In case of the extinction of the family of the Infanta, or its transference to any other throne, the duchy of Lucca is to be united to Tuscany. Maria Louisa accepted the government in 1818, after the reversion of Parma (q. v.) was secured to her. The duchy of Lucca (413 square miles, 137,500 inhabitants) is bounded by the Mediterranean, Modena and Tuscany, and, although the soil is not universally fertile, the people are in good condition. The Apennines stretch along its boundaries; in other parts it is well cultivated. The Serchio is not navigable, and is only used for floating down wood. It forms the beautiful Val di Serchio. The productions are corn (not sufficient to supply the inhabitants), great quantities of fruit, as olives, chestnuts, almonds, oranges, lemons, figs and mulberries. It also yields good wine; olives form the richest agricultural produce; the oil of Lucca is the best of Italy. The cultivation of silk, and the raising of cattle, are also lucrative. The legislative power of the duke is limited by a senate, which he annually assembles. Lucca, the capital, and ducal residence (with 18,000 inhabitants, on the river Serchio, in a fertile plain, encompassed by hills, which are covered with olive trees, and, at the summits, with oak and fir trees), is surrounded with ramparts planted with trees, and forming a beautiful walk. The streets are generally crooked and narrow; the churches and public buildings, plain. The cathedral is large, but in a bad style; the palace is old, and without beauty. The *Accademia degli Oscuri*, founded in 1584, was reörganized in 1805, under the title *Accademia Lucchesina di Scienze, Lettere ed Arti*, by prince Bacciocchi. Here is also a university with an observatory. It is the see of an archbishop, and contains two large woollen, and considerable silk manufactories. The inhabitants carry on a trade in oil and silk, and are actively engaged in agriculture. The beautiful environs of the town are adorned with country seats. In the vicinity are a mineral bath and the harbor of Viareggio.

Lucchesini, Girolamo, marquis of, formerly Prussian minister of state, descended from a patrician family of Lucca, where he was born in 1752, was introduced by the abbé Fontana to Frederic II, about 1778, who took him into his service as librarian, with the title of a chamberlain. Lucchesini, the literary friend of Frederic II, first received a diplomatic appointment under his successor, being sent to Warsaw, where, at the opening of the council of state, in 1788, he exerted himself with great activity, encouraged the advocates of independence against Russia, and, in March, 1790, brought about an alliance between Prussia and Poland. In 1791, he was present at the congress of Reichenbach, in the capacity of a plenipotentiary, for effecting, in conjunction with the English and Dutch ministers, a peace between the Turks and the emperor. In July, 1792, he went once more to Warsaw, where he was compelled, by existing circumstances, to break the alliance that he himself had signed. In January, 1793, the king appointed him his ambassador to Vienna; he, however, accompanied the king during the greater part of that campaign. In March, 1797, he was recalled from Vienna, and, in September, 1802, was sent, as ambassador extraordinary, to Paris, and afterwards visited Napoleon at Milan. The breaking out of the war between Prussia and France, in October, 1806, was unjustly ascribed to his instigation. He accompanied the king to the battle of Jena, then signed an armistice with Napoleon at Charlottenburg, of which, however, the king did not approve; in consequence of which, as he believed himself to have lost the favor of the king, he took his dismission, in order to return to Lucca. He was afterwards chamberlain to Napoleon's sister, the princess of Lucca, and accompanied her to Paris on the occasion of her brother's second marriage. Count Ségur, in his *Tableau historique et politique de l'Europe*, passes the following judgment on his Polish mission: "No man was better adapted for the post than he. His activity left no opportunity unimproved. Vigilant in accomplishing his object, and rapid in choosing the best means, the marquis of Lucchesini combined the qualities of an experienced courtier with the practical knowledge of a statesman. Learned without pedantry, his great memory supplied him useful facts for the purposes of business, as well as interesting anecdotes for conversation. His intimacy with Frederic II procured him a great influence; his powers of insinuation enabled him to penetrate into the interior of all characters; his sagacity easily removed the veil from all mysteries; and his zeal and activity, which gave him an open and frank appearance, concealed his real views, and persuaded the Poles that he was as ardently engaged for the promotion of their welfare as his own." His work concerning the confederacy of the Rhine, *Sulle Cause e gli Effetti della Confederazione Renana*, etc. (Italy, 1819), was published at Rome, and in a German translation also, by Von Halem, at Leipsic (3 vols., 1821). In the *Atti della R. Accad. Lucches. di Scienze, Lettere ed Arti, I* (Lucca, 1821), he contributed a paper on the history of Frederic II. He died at Florence, Oct. 19, 1825. He must not be confounded with the marquis Cesare Lucchesini, counsellor of state in Lucca, whose *Dell' Illustrazione delle Lingue antiche e moderne e principalmente dell' Italiana, procurata nel Secolo XVIII dagl' Italiani* (Lucca, 1819, 2 vols.), is a continuation of the work of Denina. He has also published Fragments for the Literary History of Lucca.

Lucerne (*Luzern*); a canton of Switzerland (q. v.), bounded N. by Aarau and Zug, E. by Schweitz, and S. and W. by Berne; superficial area, 800 square miles; population, 105,600 Catholics. The elevation of the country is great, but it contains no very lofty summits; mount Pilate, 7100 feet high, is the principal. The soil is generally fruitful, and more corn is produced than is consumed in the canton. Great numbers of cattle are raised, and cheese is therefore among the chief exports. The people are of German origin, and in a very comfortable condition. Lucerne joined the Swiss confederacy in 1332; its constitution is representative, but founded on aristocratic principles. The sovereign power resides in the *hundred*, a senate elected for life by the richer citizens. Two presidents (*Schultheissen*) exercise the executive power alternately for a year. Lucerne was one of the 11 cantons in which fundamental changes in the cantonal constitutions were demanded by the people in October, 1830. An account of the movements at that time will be found in the article *Switzerland*.—Lucerne, the capital, is on the lake of Lucerne and the river Reuss. It contains 6700 inhabitants, and is, alternately with Berne and Zurich, the seat of a papal nuncio. The cathedral contains one of the finest organs in Europe. General Pfyffer's topographical model of a large part of Switzerland, in relief, is to be seen here; and in the vicinity is a lion, sculptured in relief on a rock (1820), to commemorate the massacre of the Swiss guards, in the Tuileries. The lake of Lucerne is a portion of the large lake of Vierwaldstadtersee.

Lucia, St., or St. Alousie; one of the Caribbee islands, in the West Indies, belonging to Great Britain; 27 miles long, and 12 broad; seven leagues south of Martinico; lon. 61° W.; lat. 13° 37′ N. This island exhibits a variety of hills, and, among others, two that are remarkably round and high, said to be volcanoes. At the bottom of these are plains, finely watered with rivers, and very fertile.

The air, by the disposition of the hills, which admit the trade-winds into the island, is very healthy. The soil produces timber, cocoa and fustic, and is well adapted for the cultivation of sugar and coffee. It is provided with many bays and harbors, the chief of which, called *Little Carenage*, is accounted the best in all the Caribbees. Population in 1803, 16,640; whites, 1290; people of color, 1660; slaves, 13,690: in 1810, 20,000. The town of Carenage contains 5000 or 6000 inhabitants, and Castres 3000 or 4000.

Lucian, a Greek author, distinguished for his ingenuity and wit, was born in Samosata, the capital of Comagene, on the Euphrates, during the reign of Trajan. He was of humble origin, and was placed, while young, with his uncle, to study statuary; but being unsuccessful in his first attempts, he went to Antioch, and devoted himself to literature and forensic rhetoric. He soon, however, confined himself to the latter, and travelled in several countries (among others, Greece, Italy, Spain and Gaul) as a rhetorician. In the reign of Marcus Aurelius, he was made procurator of the province of Egypt, and died in the reign of Commodus, 80 or 90 years old. The works of Lucian, of which many have come down to us, are narrative, rhetorical, critical and satirical, mostly in the form of dialogues. The most popular are those in which he ridicules with great wit the popular mythology and the philosophical sects, particularly his Dialogues of the Gods, and of the Dead. They have given him the character of being the wittiest of the ancient writers. He seems not to belong to any system himself, but he attacks imposture and superstition freely and boldly wherever he finds them. The Epicureans, who, in this respect, agree with him, are therefore treated with more forbearance. The Christian religion, of which, however, he knew little, and that only through the medium of mysticism, was an object of his ridicule. In his sarcasm, he not unfrequently oversteps the bounds of truth, sometimes repeats calumnies against elevated characters, and occasionally, according to the notions of our time, offends against decency, though, in general, he shows himself a friend of morality. The best editions of his works are by Bourdolet (Paris, 1615, fol.), by Hemsterhuis and Reitz (Amsterdam, 1743, 4 vols., 4to.), and the Bipont (10 vols., 8vo.). Among the English translations are those of Spence, Hickes and Franklin.

Lucien Bonaparte. (See *Appendix*, end of this volume.)

Lucifer (*light-bearer*; with the Greeks, *phosphorus*); a son of Jupiter and Aurora. As leader of the stars, his office, in common with the Hours, was to take care of the steeds and chariot of the sun; and he is represented riding on a white horse, as the precursor of his mother; therefore the morning star. He is also the evening star (*Hesperus*), and in this character has a dark-colored horse. For this reason, riding horses (*desultorii*) were consecrated to him, and the Romans gave him the name of *Desultor*. It has long been known, that the evening and morning star are one and the same, viz. the beautiful and bright planet Venus.—The name of *Lucifer* is also given to the prince of darkness, an allegorical explanation of the fathers of the church making a passage of Isaiah (ix, 22), in which the king of Babylon is compared with the morning star, refer to the evil one.

Lucilius, Caius Ennius, a Roman knight, grand uncle to Pompey the Great on the maternal side, born at Suessa (B. C. 149), served his first campaign against Numantia, under Scipio Africanus, with whom he was very intimate. He is considered the inventor of the Roman satire, because he first gave it the form under which this kind of poetry was carried to perfection by Persius, Horace and Juvenal. His satires were superior, indeed, to the rude productions of an Ennius and Pacuvius, but he, in turn, was surpassed by those who followed him. Horace compares him to a river which carries along precious dust mixed with much useless rubbish. Of 30 satires which he wrote, only some fragments have been preserved in various editions, of which those of Dousa (Leyden, 1597, 4to.; Amsterdam, 1661, 4to.; and Padua, 1735) are esteemed the best. In his lifetime, these satires had an uncommon popularity. He died at Naples about 103 B. C.—There was also another Lucilius, who wrote a didactic poem, *Ætna*, edited by Corallus (Le Clerc), Amsterdam, 1803.

Lucina, a surname of Juno (according to some, of Diana; according to others, the name of a daughter of Jupiter and Juno), is derived either from *lucus* (grove, because her temple stood in a grove), or *lux* (light, because children are brought to light at birth), or from *luceo* (I shine, as denoting the moon). Her festival was celebrated March 1, on which occasion the matrons assembled in her temple, adorned it with flowers, and implored a happy and brave posterity, fecundity and an easy delivery. (See *Ilithyia.*)

Luckner, Nicholas; a baron of the German empire, born at Campen in Bavaria, who became a general in the French army. In the seven years' war, having displayed considerable talents as a commander of hussars, he was, on the occurrence of peace, invited to enter into the service of France, in which he obtained the rank of lieutenant-general. In 1789, he sided with the revolutionary party, and, from the beginning of 1791, he held various military employments. His age, experience and reputation occasioned his being placed in situations to which his abilities were unequal. In December, 1791, he received the *bâton* of marshal; and a few months after, he was appointed generalissimo of the French armies. After having made his appearance at Paris, where he enjoyed a short-lived popularity, and showed a disposition to support the king's constitutional authority, he went to take the command of his army at Strasburg. After August 10, 1792, he lost the chief command. He went to Paris to justify himself before the national convention, in January, 1793, and was ordered to retire wherever he thought proper. Having some time after demanded payment of a pension due to him, he was arrested and put to death.

Lucknow; a city of Bengal, capital of a *circar* of the same name, in Oude, situated on the Goomty; 95 miles N. N. W. of Allahabad, and 215 S. E. of Delhi; lon. 80° 55′ E.; lat. 26° 24′ N.; population, in 1800, estimated at upwards of 300,000; since that time it is thought to have diminished; it was formerly estimated as high as 500,000. It is a very ancient city, and the residence of the governors or nabobs of Oude. It is by no means a handsome town, the streets being very irregular and narrow; some of the houses of brick, but most of them mud walls, covered with tiles. The situation is bad, and the soil is a white sand, which, in hot weather, is driven about by the wind, and pervades every thing. The gilt domes of the mosques and the mausoleum of Azoph ud Dowleh give it a gay appearance at a distance. In the vicinity of the city stand the houses of the British resident and other European inhabitants. The Goomty is navigable for middling-sized vessels at all seasons.

Luçon, or Luçonia; the principal of the Philippine islands, in the Eastern seas, belonging to Spain, sometimes called *Manilla*, from its capital; between lat. 13° and 19° N.; lon. 120° to 124° E.; about 400 miles from north to south, and from 90 to 120 in breadth; square miles, about 65,000. The country is generally mountainous, an elevated ridge extending the whole length. There are several volcanoes, and earthquakes are frequent, and sometimes destructive; those of 1650, 1754 and 1824, are still remembered with terror. The climate is moist, but temperate for the latitude, and the soil fertile. Cotton, indigo, sugar, tobacco, coffee, and other tropical produce, grow in great abundance; also the richest fruits of the East and West Indies. There are 40 different sorts of palm-trees, excellent cocoas and cassia, wild cinnamon, wild nutmegs, ebony, sandal-wood, and excellent timber for shipbuilding. Gold is found upon the mountains, and is washed down by rains. Cattle abound; civet cats are common, and ambergris is thrown upon the coasts in great quantities. The commerce is considerable; the principal exports are indigo, coffee, pepper, rice, sugar and pearls. In 1827, of 81 vessels engaged in this trade, 29 were Spanish and 21 American. The population is 1,376,000, and is composed of Spaniards, who are few, aboriginal blacks, Malays, Metis and Creoles. The negroes are chiefly in the interior, and are in a very barbarous state. The Malays, among whom the principal tribe is the Tagals, are in part independent, and in part subject to the Spaniards. Brave, active, gay and industrious, when not ruined by the tyranny of the Europeans, they are rendered by oppression cruel and rapacious. Luçon was discovered by Magellan, in 1521, and conquered by the Spaniards in 1571. (See *Philippines.*)

Lucretia; a Roman lady of distinguished virtue, whose ill treatment by Sextus Tarquin led to the destruction of the kingdom, and the formation of the republic of Rome. She was the wife of Collatinus, a near relation of Tarquin, king of Rome. Sextus Tarquinius, who contrived to become a guest in the absence of her husband, whose kinsman he was, found means to reach her chamber in the middle of the night, and threatened, unless she gratified his desires, to stab her, kill a slave, and place him by her side, and then swear that he had slain them both in the act of adultery. The fear of infamy succeeded. She afterwards summoned her husband, father and kindred, and, after acquainting them with the whole transaction, drew a dagger, and stabbed herself to the heart. (See *Brutus, Lucius Junius.*)

Lucretius, Titus Carus, a Roman

knight, probably born 95 B. C., is supposed to have studied the Epicurean philosophy at Athens. He is said to have been made insane by a philtre, and, in his lucid intervals, to have produced several works, but to have committed suicide in his 44th year. We possess, of his composition, a didactic poem, in six books, *De Rerum Natura*, in which he exhibits the principles of the Epicurean philosophy with an original imagination, and in forcible language. The unpoetical subject of the poem must, of itself, make it, on the whole, a failure; but parts, notwithstanding, such as the description of human misery, the force of the passions, the terrible pestilence of Greece, &c., demonstrate that Lucretius was possessed of great poetical talents. By reason of his antiquated terms, and the new meanings which he gave to words, Quinctilian himself regarded his poem as very hard to be understood. The principal editions are those of Creech (Oxford, 1695; London, 1717; Basle, 1770, &c.), of Havercamp (Leyden, 1725, 2 vols., 4to.), and of Wakefield (London, 1796, 3 vols., 4to.). A masterly German translation, in the metre of the original, has been executed by Knebel (Leipsic, 1821, 4to.). The Italian version by Marchetti, and the French by Pongerville, are also good. The poem has also been translated into English by Creech, by Busby and by Good. Good's translation is accompanied by the text of Wakefield, and by elaborate annotations.

Lucullus, Lucius Licinius; the conqueror of Mithridates. Being chosen *ædilis curulis*, at the same time with his brother Marcus Licinius, he manifested, in the Marsian war, ability and courage. In the civil wars of Sylla and Marius, he sided with the former. In the year of the city 679, he was appointed consul and commander of the army which was to proceed to Cilicia against Mithridates. Having already served against Mithridates with an inferior command during his questorship, he was acquainted with this country. He first sought to restore the ancient discipline, which the Roman soldiers had forgotten among the voluptuous Asiatics. Mithridates had already made a victorious beginning of the campaign by a naval battle with the consul Aurelius Cotta, the colleague of Lucullus. Lucullus was therefore compelled to hasten the attack of his land forces. But when he approached the army of Mithridates, and ascertained its strength, he deemed it judicious to avoid a decisive battle, and contented himself with cutting off the king's communications. Mithridates now advanced with a considerable force to besiege the city of Cyzicum, the key of Asia, then in the possession of the Romans. Lucullus, however, defeated his rear-guard on their march thither, and compelled the king to give up his attempt. Lucullus now advanced to the coasts of the Hellespont, prepared a fleet, and vanquished the squadron of Mithridates near the island of Lemnos. This victory enabled him to drive all the other squadrons of Mithridates from the Archipelago. The generals of Lucullus subdued, meanwhile, all Bithynia and Paphlagonia. Lucullus, again at the head of his army, conquered various cities of Pontus, and, although overcome by Mithridates in a battle, he soon acquired such advantages, that he finally broke up the hostile army, and Mithridates himself sought protection in Armenia. Lucullus now changed Pontus into a Roman province. Tigranes refusing to surrender Mithridates to the Romans, Lucullus marched against Armenia, and vanquished Tigranes. Mithridates, however, contended with various fortune, till Lucullus was prevented from continuing the war against him effectually, by the mutiny of his soldiers, who accused him, perhaps not unjustly, of avarice and covetousness. In Rome, the dissatisfaction of the soldiers towards Lucullus was found well-grounded; he was deprived of the chief command and recalled. He was received, however, by the patricians, with every mark of respect, and obtained a splendid triumph. From this time, Lucullus remained a private individual, spending in profuse voluptuousness the immense riches which he had brought with him from Asia, without, however, abandoning the more noble and serious occupations of a cultivated mind. During his residence as questor in Macedonia, and as general in the Mithridatic wars, he had become intimate with the most distinguished philosophers. His principal instructer was the academician Antiochus, who accompanied him in some of his campaigns. Lucullus was therefore most interested in the Platonic system. After his return, he pursued the study of philosophy, induced many scholars to come to Rome, and allowed them free access to his house. He also founded, by means of Tyrannion, whom he had taken prisoner in the Mithridatic war, an extensive library, which was free to every one, and of which Cicero made diligent use. His example, also, induced other distinguished Romans to draw learned men to Rome at their expense. At last, he is said to have lost his reason in consequence of a philtre, administered by his freedman Callisthenes, so that it was necessary to place him under the guardianship of his brother. He soon after died, in his 66th or 68th year. Lucullus first transplanted the cherry-tree to Rome from Cerasus, in Pontus, 680 years after the building of the city.

Luddites; a name given, some years since, in England, to the rioters who destroyed the machinery in the manufacturing towns. They were so called from one of their leaders, named Ludd.

Luden, Henry, was born at Lockstadt, in the duchy of Bremen, in 1780; studied at Göttingen; in 1806, was made extraordinary professor of philosophy at Jena, and, in 1810, professor of history. Besides numerous historical, philosophical and political treatises in periodical publications, he has written the lives of Thomasius, Grotius, and sir W. Temple, and other valuable works, among which are *Ansichte des Rheinbundes* (1808); *Allgemeine Geschichte der Völker und Staaten des Alterthums* (3d edition, 1824); *Allgemeine Geschichte der Völker und Staaten des Mittelalters* (1821); and *Gesch. der Deutschen Völker* (3d vol., 1827). In his Nemesis, or Political and Historical Journal, he attacked the statements of Kotzebue, in his "secret, dangerous, and, in part, unfounded report." He superintended the publication of the duke of Saxe-Weimar's Travels in the U. States.

Ludlow, Edmund, a distinguished leader of the republican party in the civil wars of Charles I, the eldest son of sir Henry Ludlow, was born about 1602, at Maiden Bradley, in the county of Wilts, and received his education at Oxford, whence he removed to the Temple, in order to study the law. He served with distinction in the parliamentary army, and when "the self-denying ordinance" took place, he remained out of any ostensible situation, until chosen member for Wiltshire, in the place of his father. At this time, the machinations of Cromwell becoming visible, he was opposed by Ludlow with firmness and openness. With a view of establishing a republic, he joined the army against the parliament, when the latter voted the king's concessions a basis for treaty, and was also one of Charles's judges. With a view of removing him, Cromwell caused him to be nominated general of horse in Ireland, where he joined the army under Ireton, and acted with great vigor and ability. When Cromwell was declared protector, Ludlow used all his influence with the army against him, on which account he was recalled, and put under arrest. Although he refused to enter into any engagement not to act against the government, he was at length allowed to go to London, where, in a conversation with Cromwell himself, he avowed his republican principles, and, refusing all security or engagement for submission, he retired into Essex, where he remained until the death of the protector. When Richard Cromwell succeeded, he joined the army party at Wallingford-house, and was instrumental in the restoration of the long parliament, in which he took his seat. The restoration was now rapidly approaching, and, finding the republicans unable to resist it, he quitted the country, and proceeded to Geneva, whence he afterwards, with many more fugitives of the party, took refuge at Lausanne, where Lisle was assassinated by some English royalists. Similar attempts were made on the lives of Ludlow and others; but his caution, and the vigilance of the magistracy of Berne, protected him, and he passed the remainder of his life at Vevay, with the exception of a brief visit to England after the revolution, from which he was driven by a motion in parliament for his apprehension, by sir Edward Seymour, the leader of the tory party. He closed his life in exile, in 1693, being then in his 73d year. Ludlow was one of the purest and most honorable characters on the republican side, without any fanaticism or hypocrisy. His Memoirs contain many particulars in relation to the general history of the times: they are written in a manly, unaffected style, and are replete with valuable matter.

Luff; the order of the helmsman to put the tiller towards the lee-side of the ship, in order to make the ship sail nearer the direction of the wind.

Lugdunum; the Latin name of several cities; 1. a colony of the Romans, also called *Lugdunus*, the present *Lyons* (q. v.), though not on precisely the same spot. 2. *Lugdunum Batavorum* (Lugd. Bat.); a city in Gallia Belgica, at a later period, in the middle ages, called *Leithis*; at present, *Leyden* (q. v.); hence, on the title-page of classics, *Lugduni Batavorum*, many of which are very fine editions. 3. *Lugdunum*; a city of the Convenæ, in Gallia Aquitania, most probably the present St. Bertrand. 4. *Lugdunensis* (Gallia) was the name given, in the time of Augustus, to a part of Cæsar's Gallia Celtica. There were *Lugdunensis Prima*, afterwards *Lyonnais*; *Lugdunensis Secunda*, afterwards

Normandy; Lugdunensis Tertia, afterwards *Touraine, Maine, Anjou* and *Brittany; Lugdunensis Quarta*, or *Senonia*, comprising part of Champagne, south of the Marne, the southern part of Isle de France, Chartrain, Perche and Orleannais.

Lugger; a vessel carrying three masts, with a running bowsprit, upon which she sets lug-sails, and sometimes has top-sails adapted to them.

Lug-Sail; a quadrilateral sail bent upon a yard, which hangs obliquely to the mast, at one third of its length. These are more particularly used in the *barcalongas*, navigated by the Spaniards in the Mediterranean.

Luke; author of one of the Gospels, which is distinguished for fullness, accuracy, and traces of extensive information; also of the Acts of the Apostles, in which he gives a methodical account of the origin of the Christian church, and, particularly, of the travels of the apostle Paul. Though these two books were designed merely for his friend Theophilus, they soon attained a canonical authority, and were publicly read in the churches. Concerning the circumstances of the life of this evangelist, nothing certain is known, except that he was a Jew by birth, was a contemporary of the apostles, and could have heard accounts of the life of Jesus from the mouths of eye-witnesses, and was for several years a companion of the apostle Paul, in his travels; so that, in the Acts of the Apostles, he relates what he himself had seen and participated in. The conjecture that he was a physician is more probable than the tradition which makes him a painter, and which attributes to him an old picture of Christ, preserved at Rome. On account of this latter tradition, however, he is the patron saint of painters, and a celebrated academy of these artists, at Rome, bears his name.

Luke of Leyden, one of the founders of modern painting in the North, stands by the side of Dürer, Holbein and Kranach, at the head of the old German school, though, strictly, he does not belong to Germany. He was born at Leyden, 1494, and enjoyed, in early life, the instruction of his father, Hugo Jacob, and afterwards that of Cornelius Engelbrechtsen, an eminent painter, and scholar of Van Eyk. At the early age of nine, he began to engrave, and, in his twelfth year, astonished all judges, by a painting, in water-colors, of St. Hubert. In his 15th year, he produced several pieces, composed and engraved by himself, among which the Trial of St. Anthony, and the Conversion of St. Paul, in regard to composition, characteristic expression, drapery, and management of the graver, are models. After this, he executed many paintings in oil, water-colors, and on glass; likewise a multitude of engravings, which spread his fame widely. He formed a friendly intimacy with the celebrated John of Mabuse and Albert Dürer, who visited him in Leyden. His unremitted application injured his health; and his anxious friends persuaded him to travel through the Netherlands. But his hypochondria was not removed. He imagined himself poisoned by envious painters, and hardly left his bed for almost six years; during which time he labored uninterruptedly, and rose to the highest rank in his art. He died in 1533, in his 40th year. This artist is excellent in almost all parts of his art, though he could not entirely divest himself of the taste which characterized the childhood of painting. His designs are striking, ingenious and varied; his grouping judicious and natural; character appears in all his figures, particularly in the heads, though this character cannot be called noble. The situations and attitudes of his figures are very various, which is the more remarkable, from the great number of persons often found in his paintings. His drawing is correct, yet not ideal, but fashioned after the models of the country in which he lived. His drapery is, indeed, mostly arranged with truth, but without taste, heavy, and deformed by many small folds. His coloring is pleasing and natural, but the aërial perspective is neglected; and there is a certain harshness, not to be mistaken, peculiar to that period of the art. Notwithstanding his high finish, he painted easily. His engravings and wood-cuts bear evidence of a most careful and steady management of the graver. They are very rare, and highly prized, particularly those in which he selected the same subject with Albert Dürer, in order to compete with him. The friends often shared their ideas and compositions; but Luke ranks below Dürer. The fullest and most beautiful collection of engravings by this master, is in the library at Vienna. His paintings are scattered about in many galleries; the principal in Leyden, Vienna, Dresden, Munich, and in the Tribuna at Florence.

Lully, Raymond, a distinguished scholastic of the thirteenth century, author of the method called *Ars Lulliana*, taught throughout Europe, during the fourteenth, fifteenth and sixteenth centuries, was born in Majorca, in 1235. After having been attached to the gay court of James I of Arragon, he became filled with pious feelings, and, at about the age of 30, retired to a solitude, and, for the purpose of converting infidels, began the study of theology. Encouraged by visions, he undertook the task by studying the Eastern languages, and invented his new method, or *Ars demonstrativa Veritatis*, for the purpose of proving that the mysteries of faith were not contrary to reason. He then visited Rome and France, in the schools of which he taught; and, while at Montpellier, composed his *Ars inventiva Veritatis*, in which he developes and simplifies his method. Passing over into Africa, for the purpose of convincing the Mohammedan doctors of the truth of Christianity, he narrowly escaped with his life; and, on his return to Europe, wrote his *Tabula generalis*, a sort of key to his former works, and, in 1298, obtained from Philip the Fair a professorship at Paris. From this period dates the establishment of his doctrine in Europe. His *Ars expositiva* and *Arbor Scientiæ* are his other principal works on this subject. A second visit to Africa, for the purpose of converting the disciples of Averroës, resulted in his banishment from that region; but he returned a third time, and was stoned to death, about 1315. The Lullian method was taught and commented on for several centuries in Europe. The principal commentators are Lefèvre-d'Etaples, Alstedius, Sebonde, &c. (See Degerando, *Histoire comparée des Systèmes de Philosophie.*)

Lully, Jean Baptiste; born at Florence, of obscure parents, in 1634. As a child, he exhibited a passionate fondness for music. The chevalier Guise, who had been commissioned by Mlle. de Montpensier to send her an Italian page, struck with his talent, engaged him, and despatched him to Paris in his 10th year. The lady, however, was so little pleased by his appearance, that she sent him into her kitchen, where he remained some time in the humble capacity of an under-scullion. His musical talent becoming accidentally known to a gentleman about the court, his representations procured him to be placed under a master. He now rose rapidly, till he obtained the appointment of musician to the court. His performance soon attracted the notice of the king, by whose direction, a new band, called *les petits Violons*, was formed, and Lully placed at the head of it, in 1660; about which period, he composed the music to the then favorite amusements of the court, called *ballets*, consisting of dancing, intermixed with singing and recitative. In 1670, Lully was made joint-director of the French opera, established the preceding year, on the plan of that at Venice, which situation he filled till his decease, in 1687. Lully contributed much to the improvement of French music, and is said to have been the inventor of the overture.

Lumbago (from *lumbus*, the loin); a rheumatic affection of the muscles about the loins. (See *Rheumatism.*)

Lumpers; laborers employed to load and unload a merchant ship when in harbor.

Lump-Fish (*cyclopterus*, Lin.). These fish are very remarkable for the manner in which their ventral fins are arranged. They are united by a membrane so as to form a kind of oval and concave disk. By means of this apparatus, these fish are enabled to adhere with great force to any substance to which they apply themselves. This has been proved by placing one of them in a bucket of water, when it fixed itself so firmly, that, on taking the fish by the tail, the whole vessel and its contents were lifted from the ground, although it held some gallons. (*Brit. Zoology.*) The largest of the genus is the *C. lumpus:* this is about nine inches long, and sometimes weighs seven pounds. The back is arched and sharp, of a blackish color, variegated with brown. The body is covered with sharp, black tubercles; and on each side, there are three rows of large, bony scales, and another on the back. The great resort of this species is in the northern seas, about the coast of Greenland. Great numbers of them are devoured by the seals, who swallow all but the skins, quantities of which, thus emptied, are seen floating about in the spring months, when these fish approach the land for the purpose of spawning. It is said that the spots where the seals carry on their depredations can be readily distinguished by the smoothness of the water. Crantz says that the inhabitants of the barren tracts of Greenland, who are obliged to depend, for the greatest part of their subsistence, on fish, eagerly avail themselves of the arrival of this species. The roe is remarkably large: when boiled, it forms an exceedingly gross and oily food, of which the Greenlanders are very fond. The flesh is soft and insipid.

Lump-lac. (See *Coccus*, end of the article.)

Luna (the moon), among the Greeks, Selene, was the daughter of Hyperion and Terra (Gæa), and was the same, according to some mythologists, as Diana. (q. v.) She was worshipped by the ancient inhabitants of the earth with many superstitious forms and ceremonies. It was supposed that magicians and enchanters, particularly those of Thessaly, had an uncontrollable power over the moon, and that they could draw her down from heaven at pleasure, by the mere force of their incantations. Her eclipses, according to their opinions, proceeded from thence, and, on that account, it was usual to beat drums and cymbals, to ease her labors, and to render the power of magic less effectual. (See *Helios.*)

Lunar Caustic. (See *Nitrate of Silver.*)

Lunar Year. (See *Year.*)

Lunatics, in medicine. (See *Mental Derangement.*)

Lunatics, in law. (See *Non Compos.*)

Lund, or Lunden; a town in Sweden, province of Skonen, and government of Mălmŏhus, 5 miles from the Baltic; lon. 13° E.; lat. 55° 44′ N.; population, 3224. It is a bishop's see, and contains a university, founded in 1668, by Charles IX, which has 15 professors, a botanic garden, an anatomical theatre, a cabinet of curiosities, an observatory, and a library of 40,000 volumes. The number of students, in 1827, was 631.

Luneburg; formerly a principality of Lower Saxony, at present a province of Hanover, with 4325 square miles, and 264,000 inhabitants. The Elbe forms its boundary on the north and north-east. Luneburg is a vast plain of sand, interrupted here and there by deep moors and forests of pine. The marshes on the rivers are, however, wonderfully productive, but they are better fitted for pasture, and the cultivation of garden vegetables, than for tillage. The rivers of the province all flow into the Elbe or the Weser, the highland which divides the basins of those two rivers being the great Luneburg heath. The dikes, which protect the country from the inundations of the Elbe, are enormously expensive. About seven tenths of the whole province are incapable of cultivation, and corn is not produced in quantities sufficient to supply the inhabitants. Flax is extensively raised, and the cattle are numerous and of a good description. Bees are kept on the heaths, and the fisheries in the rivers are important. Salt, wool, linen, beeswax and wooden-wares, are the chief exports. The great commercial road from Hamburg to Hanover and Brunswick, runs through the province, and the towns of Luneburg and Celle carry on a considerable commission business. Luneburg was originally an allodial estate of the house of Brunswick, and gave its name to one of the branches of the family. (See *Brunswick.*)—*Luneburg*, the capital of the province, is an old town, with about 11,300 inhabitants, situated on the Ilmenau, which is navigable to this place for small vessels. The Kalkberg is a curious gypseous rock, 118 feet high, on which are remains of ancient fortifications, and in the quarries of which is found the rare mineral boracite. The salt springs are capable of yielding 2000 tons of salt a week. The transit trade between Hanover and Brunswick is extensive, a large number of horses being brought to Luneburg annually, and is estimated at 15,000,000 rix dollars.

Lunette, in the art of fortification; a very vague expression, which, in its original signification, probably comprised every detached work built in the form of an angle, and consisting of but two faces. It was afterwards used in a more limited sense, to denote, 1. Small, generally irregular, works, with or without flanks, that are placed in the principal ditch, before the ravelins, or other out-works, for the purpose of covering such places of the chief rampart, as may be seen from the open field, or of defending from the side such points as, through a mistake in the original plan of the fortifications, were left unprotected, the guns from the bastions not being able to reach them. 2. Advanced works on or before the glacis, sometimes constructed in the form of an angle, sometimes in the form of a bastion. This kind of lunettes, skilfully disposed on the weak fronts of a place, and arranged in one or two lines, so as to flank one another, may check the approach of the enemy for a considerable time, by obliging him to make his trenches at a greater distance than he would otherwise have done, and subjecting him to losses in the capture of each lunette. Particular attention must be paid to dispose them in such a manner as to render it impossible for the enemy to attack two lunettes at the same time.

Luneville; an open city of Lorraine, department of the Meurthe, in a fruitful plain, with a castle, 3 churches, and 12,378 inhabitants. In 1735, Stanislaus Leczynski, king of Poland, to whom Lorraine and Bar had been granted, resided here. Lat. 48° 35′ N.; lon. 6° 30′ E.

Luneville, Peace of; concluded Feb. 9, 1801, between Austria (also in the name of the German empire) and the French republic, upon the basis of the peace of

Campo-Formio. (q. v.) Belgium and the left bank of the Rhine were ceded to France; Milan and Mantua to the Cisalpine (q. v.) republic; Venice, and the country as far as the Adige, Istria and Dalmatia, to Austria. The princes on the left bank of the Rhine were to be indemnified by territories within the empire. Austria ceded the Frickthal, and the strip of land between Basle and Zurzach, to France, who, in 1802, gave them to Switzerland. Austria ceded Brisgau to the duke of Modena, and consented to the erection of the kingdom of Etruria, for which the grand-duke of Tuscany was to be indemnified in Germany. The valley of the Rhine formed the boundary of France. The navigation of the river was declared free, and remained so until 1804, when toll was imposed for the complete indemnification of several members of the empire.

Lungs; the organs of respiration in the mammalia (man, quadrupeds, and the cetaceous animals), birds and reptiles. The lungs are situated in the chest, and are divided into two parts, called *lobes*. They are enveloped in a delicate and transparent membrane, derived from the pleura, through which they have the appearance of network, and are connected with the spine by the pleura, with the neck by the windpipe, and with the heart by the roots of the pulmonary artery and veins. In their specific gravity, they are the lightest of all the animal organs, even when exhausted of air; hence their name of *lights*. To the touch, they are soft, spongy and elastic. In their internal structure, they are composed of an infinite number of membranous, celled blood-vessels, nerves and lymphatics, all connected by cellular substance. The cells communicate with each other, but have no communication with the cellular substance: small tubes arise from them, which are finally united into one large tube from each lobe; and these two at length join to form the windpipe. The blood-vessels called the *pulmonary* vessels are destined to distribute the blood through the cells, for the purpose of subjecting it to the action of the air (see *Blood*, and *Heart*); while the bronchial vessels are intended to supply the blood which nourishes the lungs. (For the action of these organs in respiration, see *Respiration.*) The cetacea (whales, seals, &c.) breathe by lungs, and are therefore obliged to ascend, at intervals, to the surface of the water, to obtain a supply of atmospheric air. The respiratory orifice, in these animals, is not situated at the extremity of the snout, but on the top of the head. In birds, the lungs are smaller than in quadrupeds, but they have air distributed throughout their muscular system and in the cavities of the bones.—The lungs afford a means of ascertaining whether a new-born child, which is found dead, was or was not living, when born,—a question often of great importance in forensic medicine. The lungs of the infant are placed in water, to see whether they will swim or sink. Before birth, the lungs are dark red, contracted into a small place within the cavity of the breast, firm, and specifically heavier than water. They therefore sink in water, whether they are entire or cut into pieces; and when cut, no air-bubbles come forth, either in or out of the water, nor does much blood appear. But if the babe has lived after birth, and therefore breathed, air has entered the lungs, has thus enlarged the cavity of the chest, and the lungs themselves are expanded, appear of a loose, spongy texture, of a pale red color, cover the heart, and fill the chest. They then swim in water, as well in connexion with the heart as without it, as well entire as in pieces. If cut, a peculiar sound is audible; air proceeds from them, and rises, if they are pressed under water, in small bubbles. From the incisions in the lungs, red, and, generally, foamy blood issues. Against this test, it has been objected—1. that air may be found in the lungs, though the infant never breathed. This could happen, however, only (*a*) from air having been blown into them; but, in this case, the chest of the infant is not arched, very little blood is to be found in the lungs, and it is not bright red nor foamy: (*b*) from putrefaction; but, in this case, the other parts of the body would also be affected by putrefaction: the lungs are not expanded, pale-red air-bubbles show themselves only on the surface, and not in the interior substance, unless the highest degree of putrefaction has taken place. 2. It is said that the child may have breathed, and therefore lived, without air being found in the lungs. This is not proved, and is at variance with the received ideas of the manifestation of life. 3. That part of the lungs may swim, another may sink. This can happen only with lungs in a diseased state, and would only prove an attempt of the infant to breathe, without the possibility of living. 4. That a child may have lived without breathing; but this state of apparent death cannot be called life: life cannot be supposed without breath. If all precautions are taken, all attending circumstances considered, the external appearance of the infant well observed, and the state of the other intestines examined, the foregoing test may be considered as sufficient for the decision of the question, whether a child has lived after birth or not. Another kind of test by means of the lungs has been proposed, which is founded on the proportion of the weight of the whole body to a lung which has breathed, and one which has not; and still another, which rests on the circumference of the chest before and after breathing has commenced; but both are more complicated, troublesome, and less certain than the former one.

Lupercalia; a yearly festival observed at Rome, the 15th of February, in honor of the god Pan, surnamed *Lupercus* (from *lupus*, wolf, and *arceo*, to drive away), the defender from wolves. It was usual first to sacrifice two goats and a dog, and to touch, with the bloody knife, the foreheads of two illustrious youths, who always were obliged to smile while they were touched. The blood was wiped away with soft wool dipped in milk. After this, the skins of the victims were cut into thongs, with which whips were made for the youths. With these whips the youths ran about the streets, all naked except the middle, and whipped those they met. Women, in particular, were fond of receiving the lashes, as it was believed that they removed barrenness, and eased the pains of child-birth. This excursion in the streets of Rome was performed by naked youths, because Pan is always represented naked, and a goat was sacrificed because that deity was supposed to have the feet of goats. A dog was added as necessary for the shepherd. The priests which officiated at the Lupercalia were called *Luperci*.

Lupine; a genus of leguminous plants, containing about 30 species, which are herbaceous or frutescent, bearing petiolate and usually digitate leaves, and large, handsome flowers, which are disposed in a terminal raceme. The *lupinus perennis* grows wild in sandy places, from Canada to Florida, and bears beautiful blue flowers. It has been cultivated in Europe for more than 150 years. We have eight other species, and probably more, in North America, several of which are only found westward of the Rocky mountains. Two of our southern species are remarkable for having simple leaves.

Lupulin. M. Planche first ascertained that the three active ingredients of the hop, viz. the oil, resin and bitter principle, reside in the brilliant yellow grains scattered over the calicinal scales of the cones, which serve as their envelope. Doctor Ives of New York, and MM. Payen and Chevalier, have since confirmed this position. This matter, when insulated, is of a golden yellow color, in little grains, without consistence, which attach themselves to the fingers, and render them rough. It has a penetrating aromatic odor: 200 parts of it afforded, 1. water; 2. essential oil; 3. carbonic acid; 4. subacetate of ammonia; 5. traces of osmazome; 6. traces of fatty matter; 7. gum; 8. malic acid; 9. malate of lime; 10. bitter matter, 25 parts; 11. a well characterized resin, 105 parts; 12. silica, 8 parts; 13. traces of carbonate, muriate and sulphate of potash; 14. carbonate and phosphate of lime; 15. oxide of iron and traces of sulphur. The bitter matter, introduced into the stomach, destroys appetite.

Lusatia (in German, *Lausitz*); an extensive country, bordering on Bohemia to the south, Meissen to the west, Brandenburg to the north, and Silesia to the east. It was formerly a margraviate, and was divided into Upper and Lower Lusatia, with a superficial area of 4250 square miles, the population of which is about 500,000. With the exception of the circle of Kottbus, which had fallen into the hands of the house of Brandenburg in 1550, Lusatia was granted to the elector of Saxony, in 1635. In 1815, all Lower Lusatia (1940 square miles), with a large part of Upper Lusatia, was ceded to Prussia (in all 3200 square miles, with 294,700 inhabitants), and was annexed to the governments of Frankfort and Liegnitz. The part of Upper Lusatia, which remained to Saxony (1050 square miles, with 195,000 inhabitants), now forms the circle of that name, comprising the eastern part of the kingdom; chief town, Bautzen (q. v.). It is not very fertile, hardly supplying half of the consumption of its inhabitants. Flax is raised in all parts, but great quantities are imported for the use of the manufactures. Linen, woollen and cotton are the principal manufactures. (See *Saxony*.)

Lusiad. (See *Camoens*.)

Lusitania; a part of Spain, whose extent and situation have not been accurately defined by the ancients. According to some descriptions, it extended from the Tagus to the sea of Calabria. The inhabitants were warlike, and the Romans conquered them with great difficulty. They generally lived upon plunder, and were rude and unpolished in their manners. (See *Spain*, and *Portugal*.)

Lustration; purification; in particular the solemn purification or consecration of the Roman people, by means of an expiatory sacrifice (*sacrificium lustrale*), which was performed after every census. (See *Census.*) The name may be derived from *luere*, in the sense of *solvere*, for, on this occasion, all public taxes were paid by the farmers-general to the censor; or from *lustrare* (to expiate), because, after the census, an expiatory sacrifice was offered for the whole Roman people. The sacrifice consisted of a bull, a sow, and a sheep or ram (*suovetaurilia*). The ram was dedicated to Jupiter, the swine to Ceres, and the bull to Mars. This solemn act was called *lustrum condere.* As this lustration took place at the end of every five years, *lustrum* came to signify a period of five years.

Lustre. (See *Lustration.*)

Lute (in Italian, *liuto ;* French, *luth ;* German, *laute*, perhaps from the German *lauten*, to sound) is an instrument which originated from the ancient lyre. (q. v.) Some, however, think that it was introduced into Spain by the Moors, where it was called *laoud ;* and from thence into Italy, where it received the name of *liuto.* The *chelys*, or *testudo*, of the Romans, was probably a similar instrument. It is a stringed instrument, formerly much in use, anciently containing only five rows of strings, but to which six, or more, were afterwards added. The lute consists of four parts, viz. the table; the body, which has nine or ten sides; the neck, which has as many stops or divisions; and the head, or cross, in which the screws for turning it are inserted. In playing this instrument, the performer strikes the strings with the fingers of the right hand, and regulates the sounds with those of the left. The notes for the lute are generally written on six lines, and not on five. There were formerly various kinds in use. The lute, simply constructed, is called the *French lute ;* if it has two necks, one of which sustains the base notes, it is called a *theorbo ;* if the strings of the *theorbo* are doubled, it is called an *arch-lute.* The difficulty of playing upon this instrument, as well as that of tuning it, is probably the reason that it has gone out of use.

Luther, Martin, one of the greatest men of the sixteenth century, was born at Eisleben, November 10, 1483. Hans Luther, his father, a miner, removed with his family to Mansfeld, in 1484, and was appointed to a seat in the council. Martin was educated in the deepest respect for religion, and, at the age of 14, was sent to school at Magdeburg; but receiving no assistance there, he was sent, in 1498, to Eisenach. At first he obtained his support by singing songs at the doors, like many other poor scholars; but he was soon taken under the care of a maternal relation in easy circumstances. At school, he made rapid progress in Latin and other studies; in 1501, entered the university of Erfurt; in 1503, received the degree of master, and delivered lectures on the physics and ethics of Aristotle. About this time, he discovered, in the library of the university, a Latin Bible, and found, to his no small delight, that it contained more than the excerpts in common use. He was destined by his father to the law; but his more intimate acquaintance with the Bible, of which the clergymen of that time knew only the Gospels and Epistles, induced him to turn his attention to the study of divinity. The impression produced on him by the death of his friend Alexis, who expired at his side, on a journey from Mansfeld to Erfurt, by a stroke of lightning or the blow of an assassin, uniting with the effect of his early religious education and his poverty, decided him to devote himself to the monastic life. Contrary to the wishes of his father, he entered the monastery of the Augustines, at Erfurt, in 1505, and submitted patiently to all the penances and humiliations which the superiors of the order imposed upon novices. But he always regarded himself as an unprofitable servant. Pure and innocent as he was, he tortured himself with bitter reproaches, and was attacked by a severe fit of sickness; during which, one of the elder brothers consoled his troubled heart, and promised him the forgiveness of his sins through faith in Jesus Christ. This doctrine, almost forgotten in the zeal of the clergy for good works, as they called them, and in the traffic in indulgences, brought a new light into the soul of Luther. He was also encouraged by the paternal mildness of Staupitz, the provincial of the order, who, perceiving his extraordinary talents and acquirements, delivered him from the menial duties of the cloister, and encouraged him to continue his theological studies. In 1507, he was consecrated priest, and, in 1508, by the influence of his patron, Staupitz, he was made professor of philosophy in the new university of Wittenberg. In this sphere of action, his powerful mind soon showed itself. He threw off the fetters of the scholastic philosophy, so intimately connected with the papal hierarchy, asserted the rights of reason, and soon collected a large number of disciples. In 1510, he visited the court of pope Leo X, at Rome, on business intrusted to him by his order. This journey revealed to him the irreligion and corruption of the clergy at Rome, and destroyed his reverence for the sanctity of the pope. After his return, he became a preacher at Wittenberg, and, in 1512, he was made a doctor in theology. As such, his oath bound him, as he thought, to the fearless defence of the Holy Scriptures. His profound learning, which embraced an intimate acquaintance with the ancient classics, the fathers of the church, and the spirit of the Greek and Hebrew languages, together with the fame of his eloquence, soon made Luther known to the principal scholars, and esteemed as a powerful advocate of the new light which was breaking upon the world. Great, therefore, was the attention excited by his 95 propositions, given to the world October 31, 1517, and intended to put an end to the sale of indulgences, by the Dominican Tetzel. Luther was impelled to this course solely by the love of truth, and by his indignation against the traffic in indulgences, the unhappy effects of which had appeared already in his congregation at Wittenberg. Ambition or hatred of the Dominicans had no influence in producing this measure. His propositions were condemned as heretical as soon as they appeared. Hogstraaten, a Dominican at Cologne, doctor Eck at Ingolstadt, and Prierias, an officer of the Roman court, immediately began an attack upon Luther; but neither their invectives, nor the papal summons to Rome, which he did not obey, nor the mild exhortations of the cardinal Cajetan, at Augsburg, in 1518, and of the nuncio Miltitz, at Altenburg, in 1519, with alluring offers from the pope himself, were sufficient to induce him to recant. He replied to his opponents with boldness and determination, and even after his dispute with Eck at Leipsic, in 1519, he still maintained the invalidity of indulgences, and of the papal supremacy. No one answered him, and he appealed with justice from the decision of Cajetan, to the pope, and from the pope to a general council. In 1520, Luther and his friends were excommunicated. His writings were burnt at Rome, Cologne and Louvain. Indignant at this open act of hostility after his modest letter, in which he had showed himself desirous of reconciliation, declared his submission to the pope, and advised a reform in the church, Luther burned the bull of excommunication, and the decretals of the papal canon, at Wittenberg, December 10, 1520. By this act, he dissolved all connexion with the pope and the Roman church. Frederic, the elector of Saxony, seemed in doubt whether he should protect him. But the worthiest of the German noblemen, Hutten, Sickingen, Schaumburg, whom he called upon to defend the new opinions, hailed him as the champion of religious liberty, and offered him their fortresses and their arms. But Luther wished no protector but God. He refused to listen to his anxious friends, who advised him not to brave the Roman hierarchy; a spirit within urged him forward, and he could not resist. The people received, with amazement, the words of a monk, who defied at once the pope and the clergy, the emperor and the princes. For this he did, when he presented himself at the diet of Worms, April 4, 1521, accompanied by a few friends and the imperial herald, who had summoned him. He was met by about 2000 persons on foot and on horseback, at the distance of a league from Worms. Such was his conviction of the justice of his cause, that when Spalatin sent a messenger to warn him of his danger, he answered, "If there were as many devils in Worms as there are tiles upon the roofs of its houses, I would go on." Before the emperor, the archduke Ferdinand, 6 electors, 24 dukes, 7 margraves, 30 bishops and prelates, and many princes, counts, lords and ambassadors, Luther appeared, April 17, in the imperial diet, acknowledged all his writings, and, on the following day, made his defence before the assembly. He concluded his speech of two hours in length with these words: "Let me then be refuted and convinced by the testimony of the Scriptures, or by the clearest arguments; otherwise I cannot and will not recant; for it is neither safe nor expedient to act against conscience. Here I take my stand; I can do no otherwise, so help me God! Amen." He left Worms, in fact, a conqueror; but it was so manifest that his enemies were determined upon his destruction, that Frederic the Wise conveyed him privately to the Wartburg, to save his life. Neither the proscription of the emperor, nor the excommunication of the pope, could disturb him in his retirement, of which he took advantage to translate the New Testament into German. But this retirement continued only 10 months. When informed of the disturbances excited by Carlstadt (q. v.), on the subject of images, he could no longer endure restraint, notwithstanding the new outlawry which the emperor had just issued against him, at Nuremberg; and, at the risk of provoking the displeasure of the elector, he hastened to Wittenberg, through the territory of George, duke of Saxony, who was one of his most bitter enemies. The letter to Frederic, in which he justified his departure, proves, not less than his conduct before the diet at Worms, his fearless courage and the greatness of his soul. The sermons which he delivered for eight successive days after his return (in March, 1522), to quell the violence of the enraged insurgents in Wittenberg, are patterns of moderation, and wisdom, and popular eloquence. They show, in a striking light, the error of those who consider Luther only as a violent and rude fanatic. He was violent only against malignity, or when he thought the great truths of religion in danger. Such motives sufficiently account for his caustic reply to Henry VIII, king of England, and the bitterness of spirit manifested in his controversies with Carlstadt and Erasmus. The latter, not without reason, he charged with worldliness and lukewarmness in a good cause. He viewed the attack of Carlstadt on his doctrine of the sacrament as an open apostasy from the faith, and an act of ambitious jealousy. Amidst these disputes and attacks, his plans for a total reformation in the church, which was called for by the voice of the nation, were matured. In 1523, at Wittenberg, he began to purify the liturgy from its empty forms, and, by laying aside his cowl, in 1524, he gave the signal for the abolition of the monasteries, and the better application of the goods of the church. In 1525, he married Catharine von Bora, a nun, who had left her convent. After overcoming numerous difficulties, he took this important step at the age of 42 years, as much from principle as inclination, with the design of restoring the preachers of the gospel to their natural and social rights and duties. Warm as was the zeal of Luther for a reform in the church, he was desirous of avoiding disorder and violence. While he went hand in hand with the imperial cities and foreign princes, both in words and actions, he opposed, most decidedly, the violence of the peasantry and of the Anabaptists. His enemies have shown great injustice in implicating him as the author of those outrages which arose from the enthusiasm of the ignorant, and were displeasing to his noble and generous mind. Luther prepared, from 1526 to 1529, a new church service, corresponding to the doctrines of the gospel, under the patronage of the elector, and with the aid of Melancthon and other members of the Saxon church. His larger and smaller catechisms, to be used in schools, were also of great service. But every one must look with pain upon the severity and intolerance which he manifested towards the Swiss reformers, because their views differed from his own in regard to the Lord's supper. (See *Lord's Supper*, and *Sacrament*.) He was thus the chief cause of the separation which took place between the Calvinists and the Lutherans. But, without his inflexible firmness, in matters of faith, he would have been unequal to a work against which artifice and power had arrayed all their forces. The rapidity with which the reformation (q. v.) advanced after the confession of Augsburg, in 1530, rendered the papal bulls and the imperial edicts against Luther inefficient. But he was obliged to be continually on his guard against the cunning Papists, who strove to make him give up some of the parts of his creed; and it required a firmness bordering on sternness and obstinacy to maintain the victory which he had won. With a spirit incident to such a state of things, Luther wrote, in 1537, the Smalcaldic articles; he gave a refusal to the ambassadors of Brandenburg and Anhalt, who were sent, in 1541, by the diet of Ratisbon, to make him more compliant towards the Catholics; and, in 1545, he refused any participation of his party in the council of Trent. The severity which he used in the defence of his faith, by no means diminishes the merit of his constancy: and an apology may easily be found for the frequent rudeness of his expressions, in the prevailing mode of speaking and thinking; in the nature of his undertaking, which required continual contest; in the provocations by which he was perpetually assailed; in his frequent sickness; and in his excitable imagination. The same excitability of temperament will serve to explain those dreadful temptations of the devil, which disquieted him oftener than would seem compatible with his strength and vigor of mind; for that age regarded the devil as a real personage, an evil principle ever active; and, if any one devoted himself to the cause of God, he was constantly obliged to resist attacks of the evil one upon his virtue. He says himself, "I was born to fight with devils and factions. This is the reason that my books are so boisterous and stormy. It is my business to remove obstructions, to cut down thorns, to fill up quagmires, and to open and make straight the paths; but, if I must, necessarily, have some failing, let me rather speak the truth with too great severity, than once to act the hypocrite and conceal the truth." Even the enemies of Luther are forced to confess that he always acted justly and honorably. No one can behold, without astonishment, his unwearied activity and zeal. The work of translating the Bible, which might well occupy a whole life, he completed from 1521 to 1534, and thus rendered his name immortal. He equalled the most prolific authors, in the number of his treatises on the most important doctrines of his creed. After the year 1512, he preached several times every week, and, at certain periods, every day; he officiated at the confessional and the altar; he carried on an extensive correspondence in Latin and German, on various subjects, with men of rank, and of distinguished literary attainments, and with his private friends; and, notwithstanding all this press of occupation, he allowed himself some hours every day for meditation and prayer, and was always accessible to visiters. He gave advice and assistance wherever it was needed; he interested himself for every indigent person who applied to him, and devoted himself, with his whole soul, to the pleasures of society. In company, he was always lively, and abounded in sallies of wit and good humor (preserved in his *Tischredem* [Table-Talk]); he was temperate in his enjoyments. Luther was no stranger to the elegant arts. His excellent hymns are well known. His fondness for music, too, was such, that, as often as circumstances permitted, he would relax his mind with singing, and playing on the flute and lute. But few men are equal to such excessive labor; and, with a weaker constitution, such a constant round of action, and vicissitude and toil would soon have overcome the great reformer. Indeed, from the year 1531, he had a painful disease (the stone, accompanied with vertigo) to contend with, and, in several fits of sickness, was brought near the grave; but he lived to the age of 63. Just before his last journey to Eisleben, where he was summoned by the counts of Mansfield to settle a dispute, he wrote, in a letter to a friend, the following description of his condition: "Aged, worn out, weary, spiritless, and now blind of one eye, I long for a little rest and quietness; yet I have as much to do, in writing, and preaching, and acting, as if I had never written, or preached, or acted. I am weary of the world, and the world is weary of me; the parting will be easy, like that of the guest leaving the inn; I pray, only, that God will be gracious to me in my last hour, and shall quit the world without reluctance." He wrote this in January, 1546. On the 18th of the succeeding February, he died at Eisleben, and was buried in the castle-church of Wittenberg. He left a wife, whom he tenderly loved, and two children (two others having previously died) in straitened circumstances. His wife died in 1552. The male line of his posterity became extinct in Martin Gottlieb Luther, who was a counsellor at law, and died at Dresden, in 1759. Against his will, his adherents styled themselves Lutherans; against his will, they engaged in a war which broke out immediately after his death, and desolated Germany. As long as he lived, Luther was for peace; and he succeeded in maintaining it; he regarded it as impious to seek to establish the cause of God by force; and in fact, during 30 years of his life, the principles of the reformation gained a firmer footing, and were more widely propagated, by his unshaken faith and unwearied endeavor, than by all the wars, and treaties and councils since. Luther's *Sämmtl. Werke* (Complete Works) appeared in 1826, at Erlangen, in 60 vols. Five different collections of his writings were published earlier, of which the most complete is that by Walch (24 vols., 4to.). There is a life of Luther, by Schröckh, in his *Lebensbeschrieb. berühmter Gel.* (Lives of distinguished Scholars), (part 1, 1790).—For further information, see the articles *Reformation*, and *Protestants*. See also the *Life of Luther, with an Account of the Reformation*, by A. Bower (London, 1813), and the articles on *Calvin*, *Melancthon*, *Erasmus*, *Zuinglius*; also Robertson's *Charles V*, and Mosheim's *Ecclesiastical History*.

LUTHERANS; the followers of the doctrines of Luther, though the reformer himself, in his writings, expresses his disapprobation of making his name that of a sect. In Spain, and some other Catholic countries, the name *Lutheran* is, in common parlance, almost synonymous with *heretic*. In Sweden and Denmark, there is an established Episcopal Lutheran church; this is not the case in Protestant Germany. Bishops have lately been created in Prussia (see *Liturgy*); but, as far as church government is concerned, they are merely titular, whatever may have been the intention of their establishment. They are, however, neither Lutheran nor Calvinist, but evangelical (q.v.).

The Lutherans in Germany cannot be said to adhere, strictly, to all the doctrines of Luther, so great a freedom of opinion, on religious matters, having gained ground in that country. As few German Calvinists adhere to predestination, few Lutherans adhere to consubstantiation, in the Lord's supper. (See *Luther*, and *Reformation.*)

Luthern, in architecture; a kind of window over the cornice in the roof of a building, serving to illuminate the upper story.

Lutzen, a small town in the present Prussian duchy of Saxony, to which two celebrated battles have given historical renown, containing 1300 inhabitants, and belonging to the government of Merseburg, lies 11 miles S. W. of Leipsic. Strategy shows why Saxony has so often been the field of battle between the powers of the north-east and the powers of the south-west of Europe. How often have the plains of Leipsic and Lützen, the neighborhood of Dresden and Bautzen, been the scene of conflict! The first battle of Lützen was fought in the 30 years' war, Nov. 6 (16), 1632, between Gustavus Adolphus, king of Sweden, and Wallenstein, duke of Friedland. The imperial troops, under the latter, amounted to 40,000 men; the Swedish troops, under Gustavus, to 27,000, including the Saxons under Bernard, duke of Saxe-Weimar. The battle was extremely obstinate, and neither party was decisively victorious during the day, but Wallenstein began retrograde movements the next day. In his army, the famous general Pappenheim was mortally wounded, and soon after died. On the side of the Protestants, the hero of their cause, Gustavus Adolphus, fell. The circumstances of his death are uncertain; but it is a mistake to suppose that he fell a victim to revenge and treachery. His body was found, by the soldiers sent in search of it by Bernard, under a heap of dead, and so much mutilated by the hoofs of horses, as to be recognised with difficulty. A plain stone marks this spot, not far from Lützen, on the great road to Leipsic; a few poplars and some stone seats surround it. His body was carried to Lützen, where traces of the blood are still shown, in the town house. (See *Gustavus* I, and *Thirty Years' War.*) A second battle, fought near Lützen, May 2, 1813, between Napoleon and the combined Russians and Prussians, was the first great conflict after Napoleon's disasters in Russia; and on this occasion, the young French and Prussian levies first measured their strength. Several reasons induced the allies to attack Napoleon, though his army, according to the best calculations, was much superior in numbers. The French corps in Saxony amounted to about 150,000 men; the allies had 55,000 Prussians and 30,000 Russians beyond the Elbe. The latter were superior in cavalry, the French in artillery, and each was desirous to decide the battle by the species of troops in which his superiority consisted. Count Wittgenstein commanded the allied forces. Napoleon's troops were moving in the direction of Leipsic, and had already advanced considerably, while they were still supposed, by the enemy, to be near Lützen. General Kleist became engaged in a sharp conflict with the French van, which was much superior to him in number. The mass of the enemy was thus directed against the flank and rear of the allies. Between the allies and Lützen lay the villages Starsiedel, Kaya, Rana, Görschen, hardly guarded by Ney's corps, which was quietly bivouacked behind them. Wittgenstein took this corps for Napoleon's van, and ordered the attack accordingly. The Prussian troops took these villages with great promptness. It was necessary that Ney should sustain himself until Napoleon could bring back his masses from the road to Leipsic. The possession of these villages was, therefore, warmly contested; they were taken and retaken with equal courage and obstinacy; but the successive arrival of new bodies of French caused some changes in Wittgenstein's orders; the allied cavalry could not operate so effectually as had been hoped, and the want of infantry began to be felt severely. Both armies displayed great courage. The Prussian troops fought with a resolution corresponding to the ardor which had hurried them into the field, and its effect became visible on the French centre, which did not escape Napoleon's experienced eye. "The key of the position," says the duke of Rovigo, "was the village of Kaya, occupied by Ney, and through which ran the road from Pegay to Lützen. Had the allies succeeded in carrying this place, they could have advanced to Lützen, and thus have divided the French army into two portions, which could only have been reunited on the other bank of the Saale. Great efforts were therefore made, by the French, to maintain Kaya, which was taken and retaken several times in the course of the day." The emperor Napoleon now ordered general Drouot, his aid-de-camp, to advance in all haste, with 60 pieces of artillery, as near as possible to the enemy's columns, and to attack him obliquely, on his left flank; for this, the course of the Flossgraben, which had also been used to great effect 200 years before, in the battle first described, afforded an advantageous position. The artillery made such ravages in the enemy's columns, for the space of an hour, that he could not resist the vigorous attack which Napoleon renewed on Kaya, by means of marshal Mortier's corps. This village was at last carried, as well as the others: night came on, and the last attempt by the Prussian cavalry was abortive. Thus both armies occupied nearly the same ground after the battle as before. According to the most accurate and impartial accounts, there were about 69,000 of the allied troops engaged against 102,000 French. The latter are said to have lost 15,000 men, killed and wounded, among whom were five generals; the Russians are said to have lost 2000, and the Prussians 8000. Generals Blűcher and Scharnhorst were wounded; the latter died in Prague—a severe loss for the Prussians. The French had lost Bessières, duke of Istria, on the preceding day. The allies were obliged to make retrograde movements, and, owing to this battle, Napoleon was again master of Saxony and the Elbe, on May 10. The French say, that, had they possessed sufficient cavalry to pursue the enemy briskly, the campaign might have been ended by this battle; the allies assert, that, had they been better supplied with artillery, they would have remained in possession of the villages, and the most serious consequences might have followed for the French. This battle had the best effect on the spirit of the Prussian troops and nation. It was the first in which the Prussian forces had measured themselves with the French since the disastrous campaign of 1806, and they were now convinced of their ability to withstand their former conquerors. The result of the battle was, indeed, advantageous for the French; but the advantage was so dearly bought, and the Prussians, whom the French troops had been taught to consider as "school boys," and inexperienced peasants, had conducted in such a manner as to show that campaigns like those of 1804, 1806 and 1809, were no longer to be expected.

Lutzow's Free Corps, or Volunteers; a Prussian corps, during the war of 1813 and 1814, which originated from the *Tugendbund* (q. v.), and was commanded by major Lűtzow. Many young men of the best families, and most patriotic spirit, joined it. Kőrner (q. v.) belonged to this corps, and celebrated it in several of his poems.

Luxation, in surgery, is the removal of a bone out of its place or articulation, so as to impede or destroy its proper motion or office; hence luxations are peculiar to such bones as have movable joints.

Luxembourg, Palace of; one of the most magnificent palaces in Paris, built in imitation of the Pitti palace at Florence, completed in 1620, after four years labor, by Jacques Desbrosses, for Mary of Medici, widow of Henry IV, on the site of the hotel of the duke d'Epinay-Luxembourg, and successively inhabited by mademoiselle de Montpensier, the duchess de Guise, the duchess of Brunswick, and mademoiselle d'Orleans. Louis XVI gave it to Monsieur, his brother; during the revolution, it was converted into a prison; it was afterwards occupied by the senate; at present, the chamber of peers assemble there. The building is very spacious, and its rooms contain beautiful specimens of architecture and statuary.

Luxembourg (*Hôtel du Petit*); an edifice in Paris, adjoining the garden of the Luxembourg palace. It was built by cardinal Richelieu for his mother, and afterwards belonged to the prince de Condé. During the republic, the directory was established here, and here it received general Bonaparte, on his return from Egypt, a few days before the 18th of Brumaire. It was next occupied by the first consul, during the first six months of his consulship. Ney was confined here, and shot in the garden; and, more recently, prince Polignac and his colleagues were confined here, previous to their trial.

Luxembourg (Francis Henry de Montmorenci), duke of, marshal of France, was born in 1628. He was the posthumous son of the count de Bouteville, who was beheaded in the reign of Louis XIII, for fighting a duel. He served, when young, under the prince of Condé; and, in 1662, he was made a duke and peer of France; and, in 1667, a lieutenant-general. In 1672, he commanded during the invasion of Holland; and, having gained the battle of Senef, in 1674, he was created a marshal of France. In the war of France against England, Holland, Spain and Germany, he won the three great battles of Fleurus (July, 1, 1690), Steinkirchen and Neerwinden (June 29, 1693). He died in 1695.

Luxemburg; a province of the kingdom of the Netherlands, with the title of grand duchy, and, at the same time, a member of the Germanic confederation, comprising the duchies of Luxemburg and of Bouillon, bounded by Liege, the Lower Rhine, Namur and France. The superficial extent is about 2400 square miles, with 293,555 inhabitants. The surface is covered with woods, mountains, and desert heaths, among which, however, are some pleasant valleys and fertile hills. The Ardennes are the chief mountains. The soil is stony, marshy, and not very productive. The Moselle and the Ourthe are the principal rivers. Agriculture is the chief occupation of the people, but potatoes form the principal food, corn not being raised in sufficient quantities. The forests belonging to the state alone, extend over 117,971 hectares. Cattle are abundant; great flocks of sheep are reared on the plains of the Ardennes; the horses are small, but celebrated for their spirit and activity. The iron mines are extensively wrought, and the slate quarries yield large quantities of roof-slates. The inhabitants are Walloons and Germans, and are in general rude, superstitious and ignorant. They are of the Roman Catholic religion. Till the late revolution, the king of the Netherlands, as grand-duke of Luxemburg, was a member of the Germanic confederation, with one vote in the diet and three in the *plenum*, and furnished a contingent of 2256 men to the army of the confederacy. The Belgians have laid claim to Luxemburg, but, as the Belgic affairs are yet undecided, we must refer to the article *Netherlands* for the issue of the negotiations. As a province of the kingdom of the Netherlands, it sent four members to the lower house of the states-general. The provincial estates consist of 60 members, named by the three orders, that of the nobles, that of the cities, and that of the country. Luxemburg was erected into a duchy, by the German emperor, in 1354, and formed a part of the Austrian Netherlands. In 1815, it was granted to the king of the Netherlands, by the congress of Vienna, as an indemnification for his cessions in Germany. (See *Nassau*.) Luxemburg, the capital, with 11,430 inhabitants, is one of the strongest fortresses in Europe. The upper town is situated on an elevated rock, rising precipitously from a plain, and defended by strong works. Five batteries on the neighboring heights command all the country round, and particularly the roads from Treves and Thionville. It is one of the four great fortresses reserved by the Germanic confederation, and garrisoned by a large body of German troops. Lat. 49° 37′ N.; lon. 6° 9′ E.; 27 leagues S. E. of Liege; 39 S. E. of Brussels.

Luxor; a village of Upper Egypt, on the right bank of the Nile, containing splendid ruins of Thebes, the site of which it occupies. (See *Thebes*.)

Luynes, Charles d'Albert, duke de, favorite and premier of Louis XIII, and constable of France, born in 1578, was descended from a noble Florentine family (Alberti), which had been banished from Florence. Having become one of the pages of Henry IV, he was the playmate of the dauphin, whose favor he soon won by consulting all his caprices. When Louis ascended the throne, he appointed Luynes his grand falconer, and marshal D'Ancre, who was all-powerful at court, showing some jealousy of his influence the favorite soon effected his disgrace The marshal was assassinated, and Luynes obtained a grant of all his immense estates, and succeeded to all his places and charges (1617). In 1619, his estate of Maillé was erected into a duchy, under the title of Luynes. He next supplanted Mary of Medici, mother of the king, whom he caused to be exiled; and the whole administration was now in his hands. In 1621, the dignity of constable of France was revived for him. Though the feeble king often complained of his cupidity and arrogance, though the whole court was intriguing against him, and the nation indignantly called for his disgrace, Luynes died in 1621, without having experienced any visible loss of favor or influence. (See *Louis XIII*.)

Luzac, John, a distinguished philologian, jurist and publicist, born at Leyden, in 1746. His parents were French Protestants, who had left France to avoid religious persecutions. After completing his studies, under Valckenaer and Ruhnken, he declined the chair of jurisprudence offered him at Leyden, and that of Greek at Groningen, and went to the Hague to prepare himself for the bar. In 1772, he returned to Leyden, to assist in editing the Leyden Gazette, which was read by all European scholars and statesmen at that time, on account of the valuable character of its materials.* From

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* The Leyden Gazette (*Gazette de Leyden*) was established in 1738, by the uncle and father of John, and contains materials important to the historian of the American revolution. John Adams, while minister in Holland, published several papers in it.

1775, he had almost the entire direction of that journal. His editorial and professional labors did not prevent him from the assiduous study of ancient literature. He corresponded with the most distinguished personages of the time, and received the most flattering marks of esteem from Washington, Jefferson, Adams, the emperor Leopold, and Stanislaus, king of Poland. In the midst of these various occupations, he accepted the Greek chair in the university of Leyden, to the regular duties of which he added private lectures and exercises for deserving students. In 1795, he published an address *De Socrate Cive*, accompanied with learned and judicious notes, and dedicated to John Adams, whose eldest son had studied under his direction. During the revolutionary troubles which succeeded in Holland, Luzac, who was no less a friend of order than of liberty, was forbidden to continue his lectures on history (1796), but was permitted to continue his instructions in Greek literature. He refused to accede to this arrangement, and was therefore entirely suspended from his professorial functions. On this occasion, Washington wrote to him, assuring him of his esteem, encouraging him to hope for justice when the ferment of the moment should be over, and professing that America was under great obligations to the writings and conduct of men like him. In 1802, he was restored to his former post, with an increase of salary and powers. He continued actively engaged in his literary labors till 1807, when he was killed by the explosion of a vessel with gunpowder aboard, in the harbor of Leyden. His *Lectiones Atticæ*, a defence of Socrates (1809), was published by professor Sluiter. His colleague, professor Siegenbeeck, has given an account of Luzac, in his history of the catastrophe which caused his death.

Luzerne, Anne César de la, a French diplomatist, born at Paris, in 1741, after having served in the seven years' war, in which he rose to the rank of colonel, abandoned the military career, resumed his studies, and, turning his views to diplomacy, was sent, in 1776, envoy extraordinary to Bavaria, and distinguished himself in the negotiations which took place in regard to the Bavarian succession. In 1778, he was appointed to succeed Gérard, as minister to the U. States, and conducted himself, during five years in which he remained there, with a prudence, wisdom and concern for their interests, that gained him the esteem and affection of the Americans. In 1780, when the American army was in the most destitute condition, and the government without resources, he raised money on his own responsibility, and without waiting for orders from his court, to relieve the distress. He exerted himself to raise private subscriptions, and placed his own name at the head. In 1783, he returned to France, having received the most flattering expressions of esteem from congress; and, in 1788, was sent ambassador to London, where he remained till his death, in 1791. When the federal government was organized, the secretary of state (Jefferson) addressed a letter to the chevalier De la Luzerne, by direction of Washington, for the purpose of making an express acknowledgment of his services, and the sense of them entertained by the nation.

Lycanthropy (from the Greek *λυκος*, a wolf, and *ἀνθρωπος*, a man); as defined by Cottgrave, "a frenzie or melancholie, which causeth the patient (who thinks he is turned woolf) to flee all company and hide himself in dens and corners." Herodotus, with great *naïveté*, tells us, that, when he was in Scythia, he heard of a people which once a year changed themselves into wolves, and then resumed their original shape; "but," adds he, "they cannot make me believe such tales, although they not only tell them, but swear to them." But the lycanthropes of the middle ages, or *loups-garoux*, as they were called by the French, were sorcerers, who, during their wolfhood, had a most cannibal appetite for human flesh. The Germans call them *Währwölfe*. Many marvellous stories are told by the writers of the middle ages, of these wolf-men, or *loups-garoux*, and numerous authentic narratives remain of victims committed to the flames for this imaginary crime, often on their own confessions.

Lyceum; an academy at Athens (q. v), which derived its name from its situation near the temple of Apollo, *λυκειος* (slayer of the wolf). In its covered walks, Aristotle explained his philosophy. In modern times, the name of *lyceum* has been given to the schools intended to prepare young men for the universities; for in them the Aristotelian philosophy was formerly taught in the scholastic form.

Lycia; a maritime province of Asia Minor, bounded by Caria on the west, Pamphylia on the east, and Pisidia on the north. Its fertility and populousness are attested by the 27 cities mentioned by

Pliny, which formed a confederated republic, with a congress which regulated the public concerns, and a president called the *Lyciarch*. Little is known of the early history and geography of this country. (See Beaufort's *Karamania*, London, 1817.)

Lycophron, born at Chalcis, in Eubœa, a Grecian grammarian, and the author of several tragedies, lived at Alexandria, 280 years B. C., under Philadelphus, whose favor he won by the invention of anagrams. He is said to have died of a wound, inflicted by the arrow of an antagonist with whom he was contending on the merits of the ancient poets. Of all his writings, there remains but one tragedy, *Cassandra* (Alexandra), which is written in iambics, and bears the marks of learning acquired by patient industry; it is therefore very difficult, and filled with obscure allusions. It is, properly speaking, a continued soliloquy, in which Cassandra predicts the fall of Troy, and the fate of all the heroes and heroines who shared its ruin. It affords some information of value respecting antiquities and mythology. A grammarian, named John Tzetzes, has written a commentary upon it.—See the edition, *cum Commentario Johannis Tzetzæ, Cura Jo. Potteri* (Oxford, 1697 and 1702, folio); also those by Reichard, with a commentary of Canter (Leipsic, 1788), by Sebastiani (Rome, 1803), by C. G. Müller (Leipsic, 1811, 3 vols.)

Lycurgus, the Spartan lawgiver, supposed to have flourished in the latter half of the ninth century B. C., was, according to the commonly received traditions, the youngest son of the Spartan king Eunomus. His eldest brother, Polydectes, succeeded his father in the government, but died soon after, leaving the kingdom to Lycurgus. As the widow of Polydectes was known to be pregnant, Lycurgus declared that, if she bore a son, he would be the first to acknowledge him for his king. To convince the Lacedæmonians of his sincerity, he laid aside the royal title, and administered the kingdom as guardian to the future heir. In the meanwhile, the queen sent word to him, that, if he would marry her, she would without delay cause the death of her child. He flattered her with the idea that he would comply with her wishes, until he obtained possession of the child. From the joy of the people at his birth, the child received the name of *Charilaus* (joy of the people). Lycurgus, by the wisdom of his administration, had already won general esteem; and his noble disinterestedness now raised his glory to a height which awoke envy against him in the minds of some of the most distinguished Spartans, with whom the queen conspired to revenge her disappointment. She spread among the people the opinion, that it was dangerous to intrust the future heir of the throne to the man who would gain most by his death. To avoid this suspicion, Lycurgus was obliged not only to resign the guardianship of the young king, but even to leave his country. Whether this resolution was partly induced by the desire of seeing foreign nations, and learning their manners, or not, we do not know; but, at any rate, he is described as employing the time of his absence in this way. After visiting Crete, and admiring the wise laws of Minos, he went to Ionia. The effeminate and luxurious life of the inhabitants, the feebleness of their laws, which formed a striking contrast with the simplicity and vigor of those of Crete, made a deep impression upon him. Here, however, he is said to have become acquainted with the poems of Homer. From hence he is said to have travelled into various countries, including Egypt, India and Spain. But, as we do not find in his laws any traces of Indian or Egyptian wisdom, this seems to be doubtful. In the meanwhile, the two kings, Archelaus and Charilaus, were esteemed neither by the people nor by the nobility; and, as there were no laws sufficient to maintain the public tranquillity, the confusion passed all bounds. In this dangerous situation, Lycurgus was the only man from whom help and deliverance could be expected. The people hoped from him protection against the nobles, and the kings believed that he would put an end to the disobedience of the people. More than once, ambassadors were sent to beg him to come to the assistance of the state. He long resisted, but at last yielded to the urgent wishes of his fellow-citizens. At his arrival in Sparta, he soon found that not only particular abuses were to be suppressed, but that it would be necessary to form an entirely new constitution. The esteem which his personal character, his judgment, and the dangerous situation of the state, gave him among his fellow-citizens, encouraged him to encounter boldly all obstacles. The first step which he took was, to add to the kings a *gerusia*, or senate of 28 persons, venerable for their age (see *Gerontes*), without whose consent the kings were to undertake nothing. He thus effected a useful balance between the power of the kings and the licentiousness of the people. The people, at the same time, obtained the privilege of giving their voice in public affairs. They had not, however, properly speaking, deliberative privileges, but only the limited right of accepting or of rejecting what was proposed by the kings or the senate. The Spartans conformed in general to the institutions of Lycurgus; but the equal division of property excited among the rich such violent commotions, that the lawgiver, to save his life, fled towards a temple. On the way, he received a blow, which struck out one of his eyes. He merely turned round, and showed to his pursuers his face streaming with blood. This sight filled all with shame and repentance; they implored his pardon, and led him respectfully home. The person who had done the deed, a young man of rank, and of a fiery character, was given up to him. Lycurgus pardoned him, and dismissed him covered with shame. After having thus formed a constitution for Sparta, Lycurgus endeavored to provide for its continuance. He made all the citizens take a solemn oath, that they would change nothing in the laws which he had introduced, before his return. He then went to Delphi, and asked the god whether the new laws were sufficient for the happiness of Sparta. The answer was, "Sparta will remain the most prosperous of all states as long as it observes these laws." He sent this answer to Lacedæmon, and banished himself. He died, as it is said, of voluntary starvation, far from his country; according to some, at Cirrha; according to others, at Elis or Crete. According to his commands, his body was burnt, and the ashes thrown into the sea, lest they should be carried to Sparta, and the people thus think themselves released from their oath. A temple was erected in honor of him at Sparta, and a society was instituted by his friends, which continued until the latest times of Sparta, and had for its object to celebrate the memory of his virtues. The principal object of the laws of Lycurgus was, to introduce into his country a mixed form of government, composed of monarchy, aristocracy and democracy, in such a manner that each element was restrained by the others. The two kings, and with them the council of Gerontes, stood at the head of the government, the people, however, having an indirect influence upon their measures. He divided all the inhabitants of Sparta into three, according to some into six or more classes, subdivided into 30 tribes. With this was, probably, connected the administration of the police and of justice, and the rules of military service. As the Spartans had already made some progress in civilization, we may well admire the resolution and the genius of Lycurgus, who was able to change not only their civil relations, but their morals and manners, and to induce such a nation to sacrifice even the comforts of life. Even his proposition of the equal division of property, which at first was violently opposed, was still accepted as a law by all the citizens. At the time when Lycurgus altered the constitution, there existed three classes—the ruling Spartans, the tributary Lacedæmonians, and the Helot slaves. (See *Helots.*) Though it appears cruel in him to have left the Helots in slavery, this was not shocking in the eyes of the Greeks. They had no idea of the injustice of such a distinction between men. Lycurgus sought to use, in the way which he thought most for the good of the state, the bonds which nature, relationship and love form among men. He treated love only as a means of producing vigorous citizens for the state, and thus preserving national independence. He appointed punishments for unmarried men, and for those who married too late, or married persons of a very unequal age. He made it difficult for those who were newly married to meet their wives, that their passions might thus remain unabated; and he allowed old or impotent men to lend their wives to vigorous youths, and men of a sound constitution, if their wives were weak and impotent, to take others. Children were not the property of the parents, but of the state. The state determined on their life or death, and directed their education without regard to the parents. To introduce temperance and moderation among the people, he ordered that the houses should be built in the most simple manner, and that all should take their meals in public, affixing also severe penalties to debauchery and drunkenness. No foreigner could remain in Sparta longer than was necessary; no Spartan, except in times of war, could leave the country. The people were allowed to possess neither gold nor silver; but iron was used for money. The Spartans were never to devote themselves to the sciences, but only to learn the most indispensable branches of knowledge; they were not to have theatres, nor to perfect their music; they could have among them neither artists nor orators without the consent of the government. Lycurgus made no change in the religious constitution of Sparta; he used it, on the contrary, for his political ends, and united the highest priestly dignity with the royal office. He ordered a simple burial for the dead, forbade all public lamentations, and limited private mourning to 11 days. He allowed, however, the dead to be buried in the city, and monuments to be erected to them in the temples, in order that the hope of obtaining such honors after death might lessen the fear of losing life. With regard to the administration of justice, he gave but few laws; but these were sufficient, if the other laws were obeyed. The quarrels which arose were decided either by the kings, or by the assembly of the people, or by the *gerusia*, or, more generally, by impartial and equitable citizens. One of the most remarkable institutions of Lycurgus, was the military education of the Spartan youth, which was such as to destroy all sensibility to suffering, and to overcome the fear of death. The beginning of a war was to them the beginning of a festival, and the camp was a place of recreation, for here ceased all that strictness of life which was observed at home; even the bodily exercises were less frequent. Victory or death was their highest glory; eternal shame followed the cowards and those who fled. The courage of the Spartans was maintained, also, by those laws which forbade them to surround their city with walls, to fight often with the same enemy, to pursue too far a routed enemy, to plunder the dead during battle, and also by the solemn burial of their heroes, the monuments to their memory, the festivals and temples in their honor. Nevertheless, Lycurgus did not intend that the Spartans should become a conquering nation, as is evident from his forbidding them a navy.—The institutions of Lycurgus have been blamed as much as they have been praised. Plato, in particular, accuses them of destroying every thing humane, and making mechanical valor the highest virtue, and thinks that this suppression of all the feelings of humanity was the cause of the countless evils which fell upon Lacedæmon, and were prepared by her for other nations. Thucydides makes Pericles say, that the virtue of the Spartans is morose, and founded only upon fear, and that their education made them cruel and inhuman.—We have here given the commonly received traditions concerning Lycurgus and his institutions, which, however, must be received with much caution. If there were such an individual,—for this is doubtful,—he lived before the time of historical certainty; and what are called his laws, were probably the usages and institutions which were common to the whole Doric race from the earliest period. A very full and critical examination of the whole subject may be found in Müller's learned work, *Die Dorier*, which has been translated into English, under the title of the History and Antiquities of the Doric Race (2 vols., 8vo., London, 1830).

Lycurgus was also the name of an Attic orator of some celebrity. He was a contemporary of Demosthenes, whom he survived, and was famous for his integrity. Only one of his orations, distinguished for strength and dignity, has been preserved to us. The latest editions are those of Heinrich, Osann and Becker, all of 1821.

Lydia (in ancient times, *Mæonia*); a large and fertile country of Asia Minor. The Ionians inhabited the part on the coast of the Ionian sea. Towards the south, it was separated from Caria by the Mæander (now Meinder); towards the east, it was bounded by Phrygia, and on the north by Mysia. It was, in early times, a celebrated kingdom, divided from Persia by the river Halys (now Kizil Ermak). Cyrus conquered Crœsus (q. v.), the last Lydian king. The people, especially under this king, were the richest, and, perhaps, also, the most effeminate and luxurious in all Asia. The Lydians invented luxurious garments, costly carpets, precious ointments, and exquisite viands; and a kind of Grecian music, which was said to bear the character of effeminacy, was called the *Lydian*. They also laid out beautiful gardens. They first discovered the secret of communicating impotence to men, that they might use them to guard their wives and concubines. In the time of Herodotus, the corruption of manners among the Lydians was already so great, that the women publicly sold their charms. Their example corrupted also the Ionians. The wealth of the Lydians, however, was probably, in a great measure, confined to the kings and chief men. These could fill their coffers with the gold washed down by the Hermus (now Sarabat) and the Pactolus, and that obtained from the mines; and they procured all the necessities of life by the labor of their slaves, whose services they requited, not with money, but with the productions of the soil. They could thus accumulate the precious metals. Crœsus was richer than all his predecessors, for he subjected the whole coast of Farther Asia, and plundered all the commercial cities. Although it cannot be proved that the Lydians had, in ancient times, any considerable commerce, it cannot be denied that they had, long before the Greeks, attained a certain degree of civilization, and that the Grecian colonies in Lower Asia owed to the Lydians their superiority over the mother country in the arts and sciences. Among other things, they owed to them the invention of gold and silver coins, of inns, of certain musical instruments, the art of dyeing wool (which was afterwards carried to such perfection in Miletus,) also the art of melting and working ore, and, perhaps, the first rudiments of painting and of sculpture. At Sardis, the capital of the country, the Grecians, Phrygians, and even the nomadic tribes, bartered their goods. There was here a great market for the slave-trade, which furnished the harems of Persia with eunuchs. Lydia now belongs to the Turkish district of Natolia (Anadoly). (See Clarke's and Chandler's *Travels*.)

Lydiat, Thomas; a learned English divine, mathematician and chronologer of the seventeenth century, who composed several learned works, some of which he was prevented from publishing by his pecuniary embarrassments, which were occasioned by his having become security for another person's debts, and subjected him to imprisonment. He afterwards suffered greatly for his attachment to the royal cause, in the civil wars, and died in obscurity and indigence, in 1646.

Lydus. John Laurentius, commonly called *Lydus*, from the province in which he was born (A. D. 490), lived at Constantinople, where he held several offices of trust under Justinian. He is principally known by his work *De Magistratibus Reipublicæ Romanæ*, which was printed, for the first time, in 1812, from a manuscript, obtained in 1785, by Choiseul-Gouffier, French ambassador at Constantinople. It was edited, with a learned commentary on the life and writings of Lydus, by M. Hase (q. v.). Niebuhr calls it a new and rich source of Roman history. His other works are on the Months (in Greek), of which we have only fragments, and on Omens (in Greek), of which some fragments only were before known, but nearly the whole of which is contained in the manuscript of Choiseul.

Lying-to; the situation of a ship when she is retarded in her course by arranging the sails in such a manner that they counteract each other with nearly equal effect, and render the ship almost stationary with respect to her head-way. A ship is usually brought-to by laying either her main-top-sail or fore-top-sail aback, the helm being put close down to leeward. This is particularly practised in a general engagement, when the hostile fleets are drawn up to battle.

Lyman, Phinehas, major-general, born at Durham, about 1716, received his degree at Yale college in 1738; was chosen, whilst a senior sophister, one of the Berkleian scholars; and, in 1739, was appointed a tutor, and in that capacity passed three years. He then commenced the study of law; and soon after his admittance to the bar, acquired an extensive practice. In 1750, he was chosen a representative in the assembly of Connecticut, from the town of Suffield, and, in 1753, was elected a member of the council, in which he continued until 1759. In 1755, he was appointed major-general and commander-in-chief of the Connecticut forces, and held this post until the conclusion of the Canadian war, during which he acquired a high reputation for military skill and bravery. At the battle of lake George, the command of the British army devolved upon him, in consequence of sir William Johnson's having been wounded in the commencement of the action. In 1762, he commanded the American forces in the expedition to Havana, in which he rendered important services. Afterwards general Lyman went to England as agent for the company of "military adventurers," composed chiefly of such as had served during the war, whose object was to obtain from the government a tract of land on the Mississippi and Yazoo, where they proposed to establish a colony. Lyman had counted upon the friendship of some of the ministry for success in his application; but, before his arrival, they had been removed, and, after being amused for several years with illusory promises, he became convinced that he had nothing to hope. Not being able to brook the idea of returning to his native country in the light of an unsuccessful supplicant, he determined to pass the remainder of his days in England. He spent 11 years there, almost in a state of imbecility, when, in 1774, his son was sent by Mrs. Lyman to beg him to return. This circumstance, in conjunction with the grant of the tract in question about the same time, roused him from his lethargy, and he once more appeared in America. After spending a short time in Connecticut, he embarked, in 1775, for the Mississippi, with his eldest son and a few companions. His family followed him in the next year, but his son had previously died, and his wife expired soon after her arrival. His family remained in that country until it was invaded and conquered by the Spaniards in 1781 and 1782, when the whole colony fled to Savannah in Georgia. General Lyman died in West Florida, in 1778, a short time after his son. Doctor Dwight remarks, in a sketch of the history of the family, that, for a considerable time, no American possessed a higher or more extensive reputation.

Lymph (*lympha*); an aqueous liquid, colorless, insipid, and diaphanous, diffused through the whole animal economy, in vessels called *lymphatics*. If allowed to stand, it separates into two parts, like the blood—a serous fluid, and a solid, or clot. The lymph serves to repair losses of the blood, by bringing to it various materials from different parts of the system, and chyle, which is mixed with the lymph in the thoracic duct. It seems also to remove those elements of nutrition, whose place is to be supplied by others, and to transmit them to the surface. The uses and history of lymph, however, are yet imperfectly known. The lymphatic vessels were not known till towards the middle of the seventeenth century. They are small, thin, transparent, furnished with valves, like the veins, and spread through different parts and organs. The cause of the circulation of the lymph is unknown, as there does not appear to be any impelling organ analogous to the heart. It has been supposed that the absorbent power exercised at their mouths impels the liquid forward, that already absorbed being thus displaced by the new absorptions. These vessels arise in every part of the body, and terminate in the thoracic duct.

Lynceus. (See *Danaïdes.*)

Lynch, Thomas, junior; one of the signers of the declaration of independence, born in South Carolina, August 5, 1749, and sent to Eton school, England, in his 13th year. He was admitted a gentleman commoner at Cambridge university, where he took his degrees, and afterwards commenced his terms in the Temple. In 1772, he returned to South Carolina, after an absence of eight or nine years. His father had warmly espoused the cause of colonial emancipation, and Mr. Lynch sustained him with ability. In 1775, the first regiment of provincial regulars was raised in South Carolina, and Mr. Lynch was appointed to the command of a company, and soon raised his quota of troops. His exertions, while on this duty, injured his health, and, when he joined his regiment late in the year 1775, a violent attack of the bilious fever of the country, had reduced him to an extremely feeble state. His father having resigned his seat in congress on account of ill health, he was elected to succeed him. At the period of his election he was but 27 years of age. He took his seat in the congress of 1776, and his character and talents made him highly esteemed there. His health soon declined; and, after affixing his name to the instrument which declared his country's independence, he retired from public life. A change of climate being recommended, he was induced to run the risk of a voyage to Europe, and embarked, with his wife, about the close of the year 1779, for St. Eustatia. He was never after heard from, and the ship is supposed to have foundered at sea.

Lynchburg; a town in Columbia county, Virginia, on the south bank of James river; lat. 37° 30′ N.; lon. 79° 22′ W.; population in 1830, 4626. It is situated 20 miles below the great falls, where James river breaks through the Blue ridge, and is one of the most flourishing and commercial towns in the state. It contains several public ware-houses, in which a large quantity of tobacco is annually inspected. It has also tobacco manufactories, tobacco stemmaries, and numerous establishments for trade and manufactures. There are in the vicinity manufacturing flour mills on an extensive scale, and cotton and woollen manufactories. In the neighborhood of the town are four mineral springs. Lynchburg was established in 1786, and incorporated in 1805. It is built mostly on the declivity of a hill. The surrounding country is rugged, broken and mountainous, but abounds in fertile valleys, and is populous. From its situation, it commands an extensive trade, not only with the western part of Virginia, but the states of North Carolina, Tennessee, Kentucky and Ohio. The articles brought to the market consist of tobacco, wheat, flour, hemp, butter, whiskey, cider, beef, live hogs, &c. The produce is conveyed in batteaux down the river to Richmond, which is the depot of all the merchandise passing from Lynchburg destined to foreign markets.

Lyndhurst, lord. (See *Copley.*)

Lynn; a post-town in Essex county, Massachusetts; 5 miles S. W. of Salem, 9 N. N. E. Boston; lon. 70° 58′ W.; lat. 42° 28′ N.: population in 1820, 4515; in 1830 6138. It is noted for the manufacture of shoes. About 1,500,000 pair of women's shoes are made here annually. There is a mineral spring in this town, near which is a house for the accommodation of visiters. Its Indian name was *Saugus.*—*Lynn beach* connects the peninsula of Nahant to the main land. (See *Nahant.*)

Lynx. This name has been applied to most of the cats with short tails: several species were formerly confounded by Linnæus under this head, and there is still much confusion respecting them. The largest and most beautiful, the *F. cervaria*, is found in Asia and Russia. The lynx of Europe, the *F. lynx*, has become rare, except in the Pyrenees, and part of the Apennines. This animal is about three feet long, and is very destructive to the smaller quadrupeds. It was celebrated, among the ancients, as having been harnessed to the car of Bacchus, in his conquest of India. They also attributed great quickness of sight to it, and feigned that its urine was converted into a precious stone. The skin of the male is spotted, and is more valuable in winter than in summer. The caracal (*F. caracal*) is somewhat larger than a fox, and derives its name from the black color of its ears, the word *caracal* signifying black in the Turkish language. There are several species of these animals in North America, the best known of which is the Northern or Canada lynx (*F. Canadensis*). Pennant considered it as identical with the lynx of the old world; Geoffroy St. Hilaire named it as a distinct species, and Temminck has again, under the name of *F. borealis*, described the species as the same in both hemispheres. It is known by the name of *loup-cervier*, and *le chat*, among the French Canadians. It is found in great abundance in the districts about Hudson's bay, from whence seven to nine thousand skins are annually exported. It is a timid creature, incapable of attacking the larger quadrupeds, but very destructive to rabbits and hares, on which it chiefly preys. It makes but little resistance when brought to bay by a hunter; for though, like a cat, it spits, and erects the hair on its back, it is easily destroyed by a blow with a slender stick. It is about three feet long from the tip of its nose to the end of its tail, which is about six inches in length, with a black tip. Its large paws, slender loins, and long, but thick hind legs, with large buttocks, scarcely relieved by a short, thick tail, give it a clumsy and awkward appearance. Its gait is by bounds, straight forward, with the back a little arched, and lighting on all the feet at once. It swims well, and will cross the arm of a lake of two miles in width, but is not swift on land. Its flesh is eaten, being fat, white, and somewhat resembling the rabbit in flavor. It breeds once a year, having two young at a time. The other American species are *F. rufa* and *F. fasciata*, both of which are smaller than the preceding. The former occurs in the Atlantic states as well as to the north and west; the latter appears to be confined to the borders of plains, and the woody country in the vicinity of the Pacific. From the accounts of travellers in the northern and western parts of this continent, it is probable that there is more than one nondescript animal of this genus, especially in the countries bordering on the Columbia; but, as the skins procured from thence are carried directly to China, they seldom come under the inspection of the naturalist.

Lyonnais; a ci-devant province in the eastern part of France, of which Lyons was the capital. It consisted of Lyonnais Proper, Beaujolais and Forez. It now forms the departments of the Rhone and the Loire. (See *Department.*)

Lyonnet, Peter, a celebrated naturalist, born in 1707, at Maestricht, graduated at Utrecht, and was for some time a counsellor at the Hague. He afterwards became secretary, and Latin and French interpreter to the states of Holland. This situation occupying but little of his time, he employed himself in researches into the natural history of insects and other animals, particularly such as were to be found in the vicinity of the Hague. He formed a valuable collection of shells, and was admitted into many of the principal scientific societies in Europe. His death took place Jan. 10, 1789. His most important production is entitled *Traité anatomique de la Chenille qui ronge le Bois de Saule* (1760, 4to.)—a work no less remarkable for originality of design than for splendor of execution. Lyonnet was distinguished for his skill as a painter and engraver, and he displayed much ingenuity in improving microscopes, and other instruments used in making his observations.

Lyons, or, properly, **Lyon** (*Lugdunum*); the second city of France, situated on the Rhone and Saône, 93 leagues S. E. of Paris, and 63 N. W. of Marseilles; archiepiscopal see; capital of the department of the Rhone; head-quarters of a military division; and seat of numerous administrative and judicial authorities; lat. 45° 46′ N.; lon. 4° 49′ E.; population, including the suburbs, in 1828, 185,723. Three bridges cross the Rhone, which is here about 650 feet wide, and often occasions great destruction by its inundations, as was the case particularly in 1812 and 1825. The Saône, which is 480 feet wide, is crossed by six bridges. The rivers are lined with wharves, some of which are adorned with handsome buildings, thronged with boats of various descriptions, and resound with the hum of numerous mills and water-shops. The interior of the city presents the aspect of an old town, with narrow and dark streets, lined with houses seven or eight stories high, built solidly of stone. The pavements are pebbles, and there are no sidewalks. Some of the streets, in the more modern quarters of the city, are more spacious and handsome. There are 59 public squares, among which that of Louis le Grand, or Bellecour, one of the most magnificent in Europe, is adorned with beautiful lime-trees, and an equestrian statue of Louis XIV. The monastic grounds and gardens have been mostly covered with buildings since the revolution. Among the principal buildings are the splendid *hôtel de ville*, next to that of Amsterdam, the finest in Europe; the palace of commerce and the arts, connected with which are lecture-halls, where various courses of lectures are delivered; the vast prefect-house, formerly a Dominican convent, with an extensive garden; the principal hospital, or *hôtel Dieu;* the Gothic cathedral of St. John, &c. There are also numerous hospitals and churches, a *palais de justice*, and an extensive prison. The tower of Pitrat, erected on an elevation to the north of the city, for an observatory, fell down in 1828, but has since been reconstructed. Many antiques have been found in the part of the city situated on the ancient *Forum Trajani*, and on the site of an imperial Roman palace. Medals, coins, vases, statues, lachrymatories, &c., with remains of aqueducts, of a theatre, and Roman baths, are among the relics of antiquity. On the hill of Fourvières is a general cemetery, adorned with trees and handsome tombs, laid out in 1808. Lyons contains one of the finest libraries in France, consisting of 92,000 volumes. Among its scientific and useful institutions are a royal college, medical and theological schools; an academy of science, literature and the arts; agricultural, Linnæan, medical, law, Bible and other societies; a *mont de piété*, savings-bank, &c. The commerce and manufactures are extensive; the most important article is silk, the manufactures of which are celebrated for their firmness and beauty; silk and woollen, and silk and cotton stuffs, beautiful shawls, crape, silk hose, gold and silver lace, &c., are among the products of her industry. A large proportion of all the silk raised in France, and great quantities imported from Italy, are wrought up here. The silk raised in the vicinity is remarkable for its whiteness. In 1828, the number of establishments for the manufacture of silk was (within the walls) 7140, and that of the looms, 18,829. Printing and the book trade, paper-hangings, the manufacture of glass, jewels, artificial flowers, hats, &c., give occupation to numerous hands. Lyons has an extensive transit trade of provisions for the southern cities, and of the oil and soap of Provence, and the wines of Languedoc, for the northern. Numerous and extensive warehouses and docks facilitate the great commercial operations of this queen of Eastern France. The Lyonnese are industrious, prudent, acute, intelligent and honest. The time of the foundation of Lyons is uncertain. Augustus made it the capital of Celtic Gaul, which received the name of *Lugdunensis.* In the reign of Nero, it was burned to the ground. In the fifth century, the Burgundians made it their capital. In the twelfth century, the sect of Waldenses was founded by Peter de Vaud, a merchant of Lyons. Italian fugitives, who came to seek refuge from the rage of parties in their country, in the thirteenth century, brought with them their arts and wealth. Lyons suffered much during the religious wars of the sixteenth century, and was recovering from its losses when the revolution of the eighteenth again covered it with desolation. The citizens having risen against the terrorists, in their municipal government, and the Jacobin club (May 29, 1793), the convention sent an army of 60,000 men against the devoted city, which, after a brave resistance of 63 days, was taken. Collot d'Herbois and Couthon erected the guillotine, *en permanence*, and, dissatisfied with this slow method of execution, massacred the citizens, in crowds, with grape-shot. The fortifications, and many buildings, were demolished, the name of Lyons abolished, and that of Ville-Affranchie substituted for it. In 1814, it was the theatre of several bloody actions between the French and the allies.

LYONS, GULF OF (*Gallicus Sinus*); a bay of the Mediterranean, on the southeastern coast of France, between lat. 42° 20′ and 43° 35′ N., and between lon. 3° and 6° 20′ E. The principal ports on this gulf are Toulon, Marseilles and Cette. It is now called, by the French writers, *Golfe du Lion*, the name being derived from the agitation of its waters. (See *Lion, Gulf of.*)

Lyre; the most ancient stringed instrument among the Egyptians and Greeks. The mythological tradition of the origin of the Egyptian lyre, the more ancient of the two, is curious. After an inundation of the Nile, a tortoise was left ashore among other animals; after its death, its flesh decayed, and some of the tendons were dried by the sun, so as to produce a sound when touched by Hermes, as he was walking on shore. He immediately made an instrument in imitation of it, and thus invented the lyre. This lyre, originally, had but three strings. The Greeks ascribed the invention of the lyre to their Hermes (Mercury), the son of Jupiter and Maia. (*Paus.* v.) But the Greeks also say, that Hermes first used the shell of a tortoise. According to others, Mercury merely improved the invention of the Egyptian. Diodorus tells us that Apollo felt so much repentance for his cruelty towards Marsyas, that he tore the strings from his cithern. The muses, after this, invented a tone, and Orpheus, Linus and Thamyras, one each. These, being added to the three-stringed Egyptian lyre, gave rise to the heptachord, or seven-stringed lyre of the Greeks. The invention of the instrument has also been ascribed to each of its chief improvers. The Egyptian and Grecian lyres were, at first, strung with the sinews of animals. The number of the strings was at last increased to eleven. It was played with the *plectrum*, or lyre-stick, of ivory or polished wood, also with the fingers. The lyre was called by different names—*lyra, phorminx, chelys, barbitos, barbiton, cithara.* The body of the lyre was hollow, to increase the sound. Few objects are so graceful in form, and susceptible of such various application in the fine arts, as the lyre, which is even yet used as a musical instrument. It is the symbol of Apollo, yet other deities also bear the lyre; and mythology mentions many gods, who distinguished themselves on this instrument. It was played by educated Greeks in general; and Themistocles having once declined playing when requested, he was considered a person without cultivation. Ἀμουσικος (unmusical) signified an *illiterate man.* In a work of Doni, entitled *Lyra Barberina*, the various forms of the lyre are collected in two large volumes.—*Lyric* was, originally, what belongs to the lyre; it was applied to songs sung to the lyre, odes, &c., and soon came to designate a species of poetry contradistinguished from dramatic poetry, which was accompanied by flutes. (See *Lyric Poetry.*)

Lyrics. Lyric poetry is that species of poetry by which the poet directly expresses his emotions. The predominance of feeling in lyric poetry is what chiefly distinguishes it from dramatic poetry, in which action and character, independent of the individual emotion of the poet, predominate; and from epic poetry, of which a series of actions and characters, as contemplated and exhibited by the poet, is the characteristic. No definite limit can be readily drawn between such departments of the art. There may be lyrical passages in an epic, or a drama, when opportunity is afforded to the poet to pour out his own excited and exalted feeling; but it is an irregularity, and a dangerous one. Poets of moderate talents, or little experience, are apt to burthen the reader with themselves, unable to follow up the representation of life in a form not individually their own. Lyric poetry is more limited than the drama (q. v.) and the epic (q. v.), because feeling is limited to the present; but, on this account, it is more excited and stirring. From the nature of lyric poetry, it has flourished better at court than the dramatic and epic, both of which, like history, require liberty, because they must represent truly the character of man in his manifold strivings, which cannot be done but by viewing life impartially, and depicting it freely; whilst the lyric poet, in most of his highest efforts, aims to express his adoration, be it of a hero, or his mistress, or nature, or God; and this tone coincides very well with the adulation of courts. Hence, when the drama and epic have gone down with the decay of national independence and spirit, and genius, debarred from action, lives only in contemplation, lyric poetry continues, and not unfrequently even flourishes, because man always *feels*; admiration, love and hatred cannot die. Even the slave may express in verse the accents of love or adulation; and religion, in all circumstances, is a never-failing spring of elevated feeling. We must not suppose, however, that every expression of feeling, in verse, deserves the name of a lyrical poem, although the mistake is a very common one, as the crowds of unfledged aspirants to lyric honors testify. It is necessary that the feeling represented should be itself poetical, and not only worthy to be preserved, but accompanied by a variety of ideas, beauty of imagery, and an eloquent flow of language. One distinct feeling should predominate, giving tone to the whole: the feeling must be worthy of the subject which caused it, corresponding to the same both in degree and kind, and must be so exhibited as to give a living picture of the poet's mind; while, at the same time, what is merely individual and accidental must be excluded, so that the poet shall be truly the representative of his race, and awaken the sympathy of all. But this requires genius of a high order. From the nature of feeling results the limited range of lyric poetry, and the variety of style and rhythm, exhibited in almost numberless metres, the bold associations of ideas, and the peculiar imagery belonging to this species of poetry. The tone of lyric poetry is warmest if it expresses feeling called forth by present circumstances. It is more composed when it represents feelings which are past. The hymns of the ancients, the ode in general, the song and hymn, with which are connected several metrical forms of the Italians and Spaniards (sonnets, *canzoni*, &c.), belong to the former; the epigram, in the Greek sense of the term, the elegy, &c., to the latter. (See the various articles, and *Lyre.*)

Lysander; a Spartan general, who terminated the Peloponnesian war by the conquest of Athens, B. C. 404. With the activity, and ambition, and penetration of Themistocles, he united the pliancy and insinuating address of Alcibiades. He gained more easily, and retained longer, the favor of the great and powerful, than Alcibiades did the hearts of women and of the multitude. He sacrificed the welfare of his country to his own ambition. He used every means to elevate his friends and ruin his enemies. Justice and truth to him were empty words. He used to say, that if one cannot accomplish his purposes in a lion's skin, he must put on the fox's. Force and fraud were his political instruments. In the court of Cyrus the Younger, where he resided a long time, he endured, without a murmur, the haughtiness of the Asiatic satraps; and, soon after, he exhibited the same arrogance towards the Greeks. His hatred was implacable, and his revenge terrible. His ruling passion was ambition. He destroyed the powerful city of Athens, and conceived the plan of raising his country to the summit of greatness, at the same time that it was to be under his own rule. He used every means to accomplish this object; he collected a fleet, and repulsed the Athenians, who lost in the engagement 50 vessels. The glory of this victory he endeavored to increase by intrigues. When, therefore, Callicratides, who succeeded him in the command, had been defeated by the Athenian Conon, in an engagement near Arginusæ, in which he lost his life, Lysander, contrary to the established custom of Sparta, was a second time appointed admiral of the fleet. He immediately sought the Athenian fleet, which was much superior to the Spartan; it lay at anchor before Ægospotamos. Only nine of the ships escaped the fury of his attack; one carried the news of the defeat to Athens; with the rest, Conon, the Athenian admiral, escaped to Evagoras, king of Cyprus. The remainder of the fleet fell into the hands of the Spartans, almost without resistance, and Lysander sailed with it into the port of Lampsacus in triumph. He put to death the prisoners (3000), with their generals, because they had thrown from a rock the crews of two Corinthian vessels, and had determined to cut off the right hand of all the Peloponnesian prisoners. After this defeat, all the Athenian allies went over to the Spartans. In the cities and islands which had surrendered, he abolished the democratic government, and founded an oligarchy. With a fleet of 180 ships, he then surrounded Athens by sea, while Agis and Pausanias enclosed it with a powerful army on land. Famine at length compelled the Athenians to surrender. They lost their independence, and considered themselves happy that their city was not destroyed. An oligarchy of 30 tyrants was now established, which was administered with the most terrible cruelty. Lysander then returned to Lacedæmon, where his character was well understood; yet the splendor of his victories, his extraordinary liberality, and his apparent disinterestedness, gave him such an ascendency that, in fact, if not in name, he was sovereign of all Greece. Contrary to the laws of Lycurgus, he brought into Sparta immense sums of money, and valuable treasures, and thus ruined the Spartan virtue. He now attempted to accomplish, by artifice, his long-conceived plan of destroying the constitution of his country, by admitting to the throne not only all the Heraclidæ, but all native Spartans, and, finally, assuming the sceptre himself. Apollo himself was to have declared that, to secure the prosperity and happiness of Sparta, its worthiest citizens should sit upon the throne. But the moment that the fraud was to have been committed in the temple at Delphi, one of the priests retracted his consent, from fear of the consequences, and frustrated the whole plot, although it was not discovered until after the death of Lysander, when the plan was found among his papers. He was killed in a battle, in the Bœotian war, in which he commanded the Spartan forces (B. C. 394). His memory was honored in Sparta; for the nation, blind to his guilt, regarded him as a virtuous citizen, since he did not enrich himself, but lived always in great poverty. His life has been written by Plutarch.

Lysias; an Athenian orator, who flourished between the 80th and 100th Olympiads, about 458 B. C. His father, Cephalus, was likewise an orator, of whom Plato makes honorable mention in his Republic. Soon after his father's death, Lysias, then in the 15th year of his age, went to Thurium, in Magna Græcia, to study philosophy and eloquence under Tisias, and Nicias of Syracuse. Having settled in Thurium, he was employed in the government; but, on the defeat of the Athenians in Sicily, he was banished, with many of his countrymen. He returned to Athens; but the 30 tyrants banished him from that city, and he retired to Megara. After Athens had recovered its freedom, he exerted himself for the advantage of the city, and even sacrificed much of his property for the public welfare. Yet, notwithstanding his generosity, the rights of an Athenian citizen were never granted him. At first, he gave instruction in eloquence; but, finding himself surpassed by Theodorus, another teacher of oratory, he devoted his time to writing orations for others. He wrote more than 200, some say 400, orations; only 223, however, were regarded as genuine. In these he excelled all the orators of his time; and has rarely been surpassed by succeeding orators. Dionysius praises the purity, clearness, conciseness and elegance of his expression, the beautiful simplicity of his style, his knowledge of men, and his lively description of their peculiarities, and, above all, his unparalleled grace. His style is applauded as a perfect example of the simple Attic eloquence. The efforts of Lysias in panegyric, however, according to Dionysius, were unsuccessful; he strives to be magnificent and lofty, but does not fully reach his object. None of these eulogies is extant, except the one entitled *Epitaphios*, and the genuineness of this is doubted; hence we cannot form an opinion of this class of his works. Only 34 of his orations have come down to our own times: editions of them have been published by Taylor (London, 1739, 4to.; and Cambridge, 1740), Auger (Paris, 1783, 2 vols.), and Reiske (in the Collection of Greek Orators). John Gillies, the historian of Greece, translated the orations of Lysias and Isocrates, and accompanied his translation with an Account of their Lives, and a Discourse on the History and Manners of the Greeks (London, 1778).

Lysimachus; son of Agathocles, a general and friend of Alexander, in the division of whose conquests he received a part of Thrace. The inhabitants stubbornly opposed his authority, and he was obliged to conquer the country. After this, he built the city of Lysimachia, on the Thracian Chersonesus, assumed the royal title, like the other generals of Alexander, and formed a league with some of them against Antigonus, who had brought under his own power the territories conquered by Alexander in Asia. After the battle of Ipsus, in Phrygia (B. C. 301), which cost Antigonus his life and his crown, Lysimachus became master of Asia Minor, Cappadocia Proper, and all the provinces between the Taurus and the Antitaurus. He next made war on the nations on the borders of Thrace, and enlarged his territories by conquest. In attempting to subjugate the Getæ, who lived beyond the Danube, his son and himself fell into their hands. He was compelled to surrender, with his army, to the barbarians, who, with horrid cries, demanded his death. But their king treated him more generously than the ambitious Lysimachus dared to hope. He provided for his prisoners an entertainment in the manner of the Greeks, and left them their own splendid furniture and utensils; his own food, on the contrary, was mean, and his vessels were all made of clay or wood. After the meal was concluded, he asked the captive monarch whether the rude living of the Getæ, or the splendid banquets of his own country, seemed to him most desirable, and advised him to make peace with a nation from whom so little was to be gained, restored him his power, admitted him to his friendship, and dismissed him without a ransom. This generous conduct made a deep impression on the tyrannical conqueror. He restored to the king of the Getæ the countries which he had gained beyond the Ister, and gave him his daughter in marriage. From this time, the power of

Lysimachus became more and more extended, till his domestic relations involved him and his kingdom in ruin. Having put away his first wife, he married Arsinoe, a daughter of Ptolemy, who led him to commit many acts of folly, and even prevailed upon him to murder Agathocles, his son by his first wife, in order to secure the succession to her own children. The virtues of Agathocles had gained him many powerful friends, who determined to take vengeance upon his weak and cruel father. They fled to Seleucus, and engaged him in a war against Lysimachus. Seleucus conquered all Asia Minor almost without a blow. A general battle was fought at Couropedium, in Phrygia, and, after a valiant resistance, Lysimachus was totally defeated and slain, B. C. 282, in the 74th year of his age.

Lysippus; a sculptor, who flourished in Sicyon, about 330 B. C., in the time of Alexander the Great. Alexander would permit no one but Apelles to paint his portrait, and no one but Lysippus to make his statue. The statues of Lysippus were principally portraits. He was first a coppersmith, and afterwards devoted himself to sculpture. The painter Eupompus, whom he asked what master he should follow, told him to follow nature. His statues were wrought with much greater beauty and elegance than those of his predecessors. He made the body more slender; the head smaller; the hair more natural, flowing and delicate; he avoided angularity, and endeavored to give to every part more roundness and softness of outline. He used to say, he represented men as they appeared to his imagination, but his predecessors represented them as they really were. Even the minutest parts were labored with the greatest care. It is not known whether he executed any marble statues, but many in bronze are still preserved. The most celebrated are, a man rubbing himself in a bath (*Apoxyomenus*); several statues of Alexander, representing him in all the different stages of his life; a group of Satyrs, which was found at Athens; Alexander and his friends, a number of statues which were intended to bear an exact resemblance to the original; and a colossal Jupiter at Tarentum.

Lyttleton, George, lord, an elegant writer and historian, was the eldest son of sir Thomas Lyttleton, baronet, of Hagley, in Worcestershire, where he was born in January, 1709. In his 19th year, he set out upon a tour to the continent, and, on his return, in 1730, was chosen member of parliament for Okehampton, and concurred in the measures of the opposition, led by Pitt and Pulteney. When Frederic, prince of Wales, formed a separate court, in 1737, he was appointed his secretary. On the expulsion of Walpole, he was appointed one of the lords of the treasury; but, although he spoke with elegance and fluency, his oratory wanted force, and he never attained the rank of a political leader. In early life, he had imbibed sceptical opinions; but, being subsequently led into a conviction of the divine origin of Christianity, he composed his well-known Dissertation on the Conversion of St. Paul, first printed in 1747. About this time he lost his first wife, on whom he wrote the celebrated monody, and, in 1749, married a lady from whom, after a few years, he separated by mutual consent. In 1751, he succeeded his father in his title and ample estate, and, by his elegance and taste, rendered Hagley one of the most delightful residences in the kingdom. At the dissolution of the ministry, he was raised to the peerage by the title of baron Lyttleton, of Frankley, in the county of Worcester. From this time, he lived chiefly in literary retirement, and, in 1760, published his Dialogues of the Dead. The latter years of his life were chiefly occupied in his History of Henry II, which is the result of assiduous research, but too prolix. He died in August, 1773, in the 64th year of his age, leaving a son, who succeeded him in his titles, and, with great talents, became conspicuous for a conduct entirely opposite to that of his father. The poems of lord Lyttleton maintain a place among the collection of British poets, for their correct versification, and delicacy of sentiment, rather than for higher qualities. His miscellanies, in prose, also display good taste, and a cultivated mind. His works were first collected and printed in 1774, 4to., and since in 8vo. (See Johnson's *Lives of the Poets*.)

M.

M; the 13th letter and the 10th consonant in the English alphabet, a labial, produced by a slight expiration with a compression of the lips. It is one of the liquids or semi-vowels, and was not therefore considered by the Romans a consonant; but was very faintly pronounced, rather as a rest between two syllables, than as an articulate letter (*Quint.* ix. 4), which explains why it was subject to elision. 1. It is one of the first letters which children learn to pronounce, in connexion with the easy vowel *a.* (See *A.*) 2. It passes easily into other letters, losing itself in the preceding or succeeding letters—a circumstance which the etymologist must bear in mind, in seeking the derivation or connexion of words having an *m* in their root; thus, for instance, the German *Wange* (cheek) is the ancient *Mangon*, and the middle Latin gives *hombarius* as well as *hobarius.* The Italians use *o* for the Latin *um*, at the end of words. We even find the *m* suppressed at the end of words, on some ancient medals and inscriptions; thus, on the medals of the Æmilian and Plautian families, we find PREIVERNV. CAPTV.; on others, AVGVSTORV. If the *m* is fully pronounced, the sound passes partly through the nose, as is also the case with *n*. Hence, in French, it is nasal at the end of a word, as in *parfum*, *faim*, some foreign words excepted, as *Abraham*, *Jerusalem.* The *mem* of the Hebrews, as a numeral, signified 40; the same was the case with the Greek μʹ; ͵μ, however (characterized by the stroke before it) signified 40,000. In Latin, it signified 1000: the original designation of this number was double D or (CIƆ), which gradually became an M. MM denotes 2000, and M̄ 1,000,000, or a thousand thousand. In numismatics, M stands for a great number of words; for *Macedonia*, as LEG. M. XX. *Legio Macedonica Vicesima*; *Malea*, *Massilia*, *Mamertini*, and many other places or countries; for *Marcus*, *Manlius*, *Marcellus*, and other names; for *magnus*, *militaris*, *menses*, *mater*, *magister*, &c.; EQ. M. for *equitum magister.* M. D. signifies *medicinæ doctor* (doctor of medicine); A. M. *artium magister* (master of arts); MS. *manu scriptum* (manuscript); MSS. (manuscripts). D. O. M. signifies *Deo optimo maximo* (To the best and greatest God, or, To the Most High). On tombs, D. M. S. means *Diis Manibus Sacrum.* *M* stands for noon, from the Latin *meridies.* Hence P. M. *post meridiem* (afternoon); A. M. *ante meridiem* (forenoon). In medicine, it signifies *misce* or *misceatur*; also *manipulus* (a hand full). On modern coins, it signifies—1. the mint of Toulouse; 2. with a small *o* over it, Mexico; 3. with a crown, Madrid. M, in French, often stands for *Monsieur*; MM. for *Messieurs.* In music, it is used for the Italian words *meno* (less), *mano* (hand), *mezzo* and *moderato* (moderate). *M'c* stands, in Scotch and Irish names, for *Mac* (q. v.). *M* is likewise used by printers for the unit of measure of printed matter. Types of the same fount have bodies of equal thickness in one direction, and the square of this dimension is used in determining the amount of printed matter in a given space, as a page for instance, and is termed an *m.*

Mab; the queen of the fairies, so fancifully described by the sportive imagination of Shakspeare, in Romeo and Juliet. Chaucer speaks of a king and queen of Fayrie, but seems to attribute the royal dignity to Proserpine and Pluto. The origin of the more amiable Oberon and Titania or Mab (if they are not the same) is uncertain. Poole, in his Parnassus (1657), thus describes the Fairy court: Oberon, the emperor; Mab (*amabilis*), the empress; Perriwiggin, Puck, Hobgoblin, Tom Thumb, &c., courtiers; Hop, Mop, Drop, Tib, Tit, Tin, Tick, Pip, Trip, Skip, &c. &c., maids of honor; Nymphidia, mother of the maids. Puck is the emperor's jester. Drayton's *Nymphidia*, and the Midsummer Night's Dream, are delightful illustrations of the antiquities of queen Mab's empire.

Mabillon, John, a learned French Benedictine of the congregation of St. Maur, a writer on ecclesiastical antiquities and diplomatics, was born in 1632, in Champagne, and studied at the college of Rheims. He took the monastic vows in 1654, and, in 1660, was ordained a priest. After having assisted father D'Acheri, in his *Spicilegium*, he edited the works of St. Bernard; and, in 1668, published the first volume of the *Acta Sanctorum Ordinis S. Benedicti*, of which the ninth and last volume appeared in 1702. One of his most important productions is his treatise *De Re Diplomatica, Lib. vi* (1681, folio). He was sent to Italy, with a commission from the king, to make a literary collection; and, returning to France with books and MSS. for the royal library, he published an account of his journey, &c., under the title of *Musæum Italicum* (1687, 2 vols., 4to.). In 1701, he was chosen a member of the academy of inscriptions, and, in that year, began to publish his *Annales Ordinis S. Benedicti*, four volumes of which appeared previously to his death, in 1707. Father Mabillon was the author of many other works of research, distinguished for liberality of sentiment and freedom of opinion, as well as for profound learning.

Mably, Gabriel Bonnot de, a French political and historical writer, was born at Grenoble, 1709, and died at Paris, 1785. He was educated by the Jesuits at Lyons, but as soon as he was at liberty to follow his inclination, he abandoned theological studies for Thucydides, Plutarch and Livy. The young abbé now went to Paris, where he was favorably received by madame De Tencin, sister of the cardinal, to whom he was related, and soon after published his *Parallèle des Romains et des Français* (1740), which was received with applause, and obtained him the patronage of cardinal Tencin. That minister employed Mably to write his memorials and reports; and it was from minutes drawn up by himself, for the use of the cardinal, that Mably prepared his *Droit public de l'Europe fondé sur les Traités.* He was appointed, in 1743, to carry on the secret negotiations with the Prussian ambassador at Paris, with whom he concluded a treaty against Austria. The instructions of the French minister at the congress of Breda (1746) were drawn up by him. Notwithstanding this prospect of success in politics, a misunderstanding with the cardinal induced him to retire from affairs, and devote himself to study. The tone of his subsequent publications is somewhat different from that of his *Parallèle.* Among them are *Observations sur l'Histoire de la Grèce; Observations sur les Romains* (1751); *Entretiens de Phocion* (in which he gives his ideas of virtue, patriotism, and the mutual obligations of the state and the citizens towards each other); *Observations sur l'Histoire de France* (of which an edition has lately been published by Guizot, with notes); *Entretiens sur l'Histoire.* His complete works appeared at Paris, in 1794, 15 vols. His style is easy, pure, often elegant, but tame; his views often partake of the asperity of his temper.

Mabuse, or **Maubeuze**, John de, an able artist, was born at Maubeuze, a village of Hainault, in 1492, and studied the works of the great masters in Italy. His habits were so dissipated, that the patience, fidelity and beauty with which his pieces were executed, were doubly remarkable. He painted a great altar-piece, representing the descent from the cross, for a church in Middleburg; but the church and the picture were destroyed by lightning. Another descent from the cross, by him, is still at Middleburg. His irregularity occasioned his imprisonment in this place; and, during his confinement, he painted several fine pieces, which are lost. He afterwards went to England, and painted several pieces for Henry VIII. Several excellent works of his are at Middleburg; the best of which is the altar-piece, representing the descent from the cross. Having received a piece of rich brocade, in order to appear before the emperor Charles V, he sold it at a tavern, and painted a paper suit so exceedingly like it, that the emperor could not be convinced of the deception, until he examined it with his own hands. He died in 1562.

Macaber; according to some, an early German poet, author of a work entitled the Dance of Death, or, the Dance of Macaber, consisting of a series of dialogues between Death and a number of personages belonging to various ranks of society. Others suppose the word merely a corruption of the Arabic *magbarah*, a cemetery. (See *Death, Dance of.*) An English translation of these dialogues was published by Dugdale and Dodsworth, in the 3d volume of the *Monasticon Anglicanum;* and French and Latin versions have been repeatedly printed.

Macao, China, in Quang-tong; lon. 113° 35′ E.; lat. 22° 13′ N. This town is built on a peninsula, or rather on a small island, which has an area of 106 square miles, and contains 33,800 inhabitants. It is the only European settlement in China, and was ceded to the Portuguese in 1580. (See *India, Portuguese.*) The Portuguese fortified the place, and surrounded it with strong walls. Macao has a Portuguese governor, and a Chinese mandarin; and the English and other nations have factories here. The houses are of stone, built after the European manner; but they are low, and make little show. The city is defended by three forts, built upon eminences; its works are good, and well planted with artillery. It was formerly a place of the greatest importance, being the centre of the trade of the Portuguese in the eastern part of Asia. Since the decline of the Portuguese trade, the town has sunk into a place of comparatively little importance. In the garden of the English factory is shown a cave, called the *grotto of Camoens* (q. v.), in which he is said to have composed the *Lusiad.*

Macarthy, sir Charles; an Irish officer, who commanded at Cape Coast, in 1821. Whilst making preparations to repel the Ashantees, the king sent his compliments to him, and said he hoped to have his head, as an ornament to his great wardrum. In 1823, sir Charles marched against the Ashantees, with a mixed force of Europeans and blacks, the latter of whom ran away, and, the whites being defeated, their commander was captured by the victor, who ferociously realized his menace, January 21, 1824. In a subsequent battle, the Ashantees were entirely defeated, and this barbarous trophy was recovered and conveyed to the relations of sir Charles.

Macartney, George (earl Macartney), the son of a gentleman of Scottish descent, was born in Ireland, in 1737, and educated at Trinity college, Dublin; after which he became a student of the Temple. In 1764, he was appointed envoy extraordinary to Russia, afterwards became secretary to the lord-lieutenant of Ireland, and was created knight of the Bath. In 1775, he was made captain-general and governor of the Caribbee islands, Grenada, the Grenadines and Tobago. Grenada was invaded and taken by the French, and the governor was sent a prisoner to France. On his return to England, he was appointed to the presidency of Madras, having previously received an Irish peerage. On his embassy to China, in 1792, he conducted with great address, and succeeded in the chief object of his mission. His only subsequent public situation was that of governor of the cape of Good Hope, whence he returned, on account of ill health, in 1797. He died March 31, 1806. His English earldom was bestowed on him for his services in China. Lord Macartney was the author of a Journal of his Chinese embassy, and other publications. (See Staunton's *Embassy to China*, and Barrow's *Life of Lord Macartney.*)

Macassar; a city of Celebes, on the south-west coast, capital of a kingdom called *Macassar* or *Bony;* lon. 119° 50′ E.; lat. 5° 10′ S.; population, according to Hassel, 100,000. This town is the chief settlement of the Dutch on the island, and called by them *Fort Rotterdam.* The town is built on a neck, or point of land, at the mouth of a river which forms a harbor, with water enough for a ship to come within cannon shot of the walls. The town is large; the houses are of wood, built on piles, to guard against inundations. The country round about is level and beautiful, abounding with plantations and groves of cocoa-nut trees. At a distance inland, the country rises into hills of great height, and becomes rude and mountainous. (See *East India Company, Dutch.*)

Macassar, Straits of; the channel or narrow sea between Celebes and Borneo, about 350 miles long, and from 110 to 140 wide, except at the north entrance, where it is contracted to 50 miles.

Macauley, Catherine, or **Graham**, the name of her second husband, was born in Kent, at the seat of her father, John Sawbridge. She was well educated, and became early attached to the perusal of history. In 1760, she married doctor George Macauley, a physician, and, in 1763, published the first volume (4to.) of her History of England from the Accession of James I to that of the Brunswick Line. This was continued, in successive volumes, to the eighth, which completed the work, in 1783. The spirit of this history is almost purely republican. The other works of Mrs. Macauley are, Loose Remarks on some of Mr. Hobbes' Positions; an Address to the People of England on the present Important Crisis (1775); a Treatise on the Immutability of Moral Truth, afterwards republished, with additional matter, under the title of Letters on Education (1790). Her last publication was a Letter to Earl Stanhope, in reply to the opinions of Burke on the French Revolution (1791). In 1785, Mrs. Macauley married a young man of the name of Graham, and the disparity of their ages subjected her to much ridicule. She paid a visit to general Washington, in America, in 1785, and died in 1791.

Macaw. These magnificent birds belong to the parrot tribe, and are distinguished by having their cheeks destitute of feathers, and the feathers of the tail long. They form the sub-genus *ara*. They are only found in the tropical regions of South America. They prefer moist situations, from the palm growing in such spots, of the fruit of which they are very fond. They usually go in pairs; sometimes, however, they assemble, in the morning and evening, in great numbers. Although they fly well, they seldom wander far, except in quest of food, and regularly return in the evening. They build their nests in the hollow of rotten trees, and lay twice in the year, generally two eggs at a time. The male and female share alternately in the labor of incubation and rearing the young. When young, they are easily tamed, and soon grow familiar with persons whom they frequently see. But, like all the parrot tribe, they have an aversion to strangers, and particularly to children. In a domesticated state, they will feed on almost every article, but are especially fond of sugar, bread and fruits. They do not masticate the latter, but suck them by pressing their tongue against the upper mandible. Like the other parrots, these birds use their claws with great dexterity, though, in climbing, they always begin by taking hold with their bill in the first instance, using their feet only as a second point of their motion. When they were first carried to Europe, their great beauty and size caused them to be in much request, and they were considered as valuable presents between sovereign princes. This bird was spoken of, by Aldrovandus, as early as 1572.

Macbeth lived about the middle of the eleventh century. He served against the Danes as general of his relation Duncan I or Donald VII, king of Scotland. The Danes were completely defeated, and Macbeth now conceived the idea of obtaining possession of the Scottish throne. He appears, like most men in his time, to have believed in the predictions of the pretenders to supernatural knowledge. On his return from his victory over the Danes, three old women met him with the insignia of the witches of that period, and saluted him—the first, as thane of Glamis; the second, as thane of Cawdor; the third, as about to be king of Scotland. The two first predictions being almost immediately fulfilled, Macbeth was led to hope for the accomplishment of the last, and, after brooding over the subject for a time, determined to assassinate the king; and perpetrated the crime when the king was visiting him at his castle of Inverness. The king's sons were obliged to save themselves by flight; and Macbeth brought the nation to favor his cause, by liberality to the nobility, and by strict justice in his administration. For 10 years, he reigned with moderation; but, after this period, he suddenly became a tyrant. His first victim was Banquo, who had been privy to the murder of the king. Feeling insecure, he erected a castle on Dunsinane, from which he could overlook the whole country. This is the legend, which has been adopted by poetry. But history shows no such person as Banquo; Duncan was slain near Elgin, and not in Macbeth's own castle; and Macbeth, though he ascended the throne by violence, had in fact a better claim to it than Duncan, and was a firm, just and equitable prince. Macduff, thane of Fife, fled to England, and urged Malcolm, the son of the murdered Duncan, to take vengeance. Assisted by Siward, earl of Northumberland, they returned to their country. Macbeth was defeated, fled to his castle, and was slain in the 17th year of his reign, A. D. 1057.

Maccabees; two apocryphal books of the Old Testament, which contain the history of Judas surnamed Maccabeus, and his brothers, and the wars which they sustained against the kings of Syria, in defence of their religion, and the independence of their country. (See *Jews*.) The author and the age of these books are uncertain. The council of Trent placed them among the canonical books, but the Protestants have rejected them as apocryphal.

Maccaroni, Macaroni or **Maccheroni**; a preparation of fine flour, which forms a favorite article of food among the Italians. It is eaten in various ways, generally simply boiled, and served up with grated cheese. Maccaroni is generally made in pieces resembling a long pipe handle, of small diameter; sometimes, however, in other shapes, as flat, square, &c. It is a wholesome food, and a national dish of the Italians, particularly of the Neapolitans. It is made best in the neighborhood of Naples, whole villages living almost solely by the manufacture; and, in Naples, it is continually sold in the streets, cooked for the lower classes, particularly for the *lazzaroni*. The pieces being very long, and being held in the fingers during the process of eating, some skill is required to manage them. This fashion of eating yard-long maccaroni, forms a subject of ridicule against the Neapolitans, in more than one Italian comedy. The modes of cooking maccaroni are various ; the simplest are the best. The fashion of cutting it into pieces, and stewing it with eggs, &c., as is done in England and the U. States, is not to be recommended. Maccaroni is well made at Aix in France, and pretty well in Germany.—*Maccaroni* is also used as a term of contempt for a coxcomb—*homo crassæ Minervæ.*

Maccaronic Poems ; a kind of facetious Latin poems, in which are interspersed words from other languages, with Latin inflections. They were first written by Teofilo Folengi, under the name of *Merlino Coccaio*, a learned and witty Benedictine, born in 1484, at Mantua. He was a contemporary and friend of Sanazzario. Ferdinand of Gonzaga, with whom he resided 10 years in Sicily, was his patron, and Folengi often celebrates his praises. He spent the rest of his days in a monastery at Bassano, where he died in 1544. Various grave and religious poems of his, in Italian and Latin, are still extant, and are not without value. He is regarded by the Italian poets as the inventor of heroi-comic poetry. His principal poem in this style was called *Maccaronea*, because it was mixed up of Latin and Italian, as maccaroni is made of various ingredients. An edition of this poem, printed in 1521, is still extant. In imitation of Virgil, he carries the hero of his poem through numerous circumstances, and, at last, to the infernal regions. Here, among other things, he sees the punishment of poets. For every untruth or exaggeration in their works, devils were appointed to extract a tooth, which grew again every day. This poem contains many satirical accounts of the manners of the age, with beautiful passages in genuine Latin verse. Besides this, he wrote a smaller comic poem, entitled *Moschea*, or the War of the Gnats and the Emmets—a youthful production ; also Eclogues and Epistles ; all in the maccaronic style. Heinsius (*Teut*, 4th part, p. 171) mentions a German poem of this sort—*Floïa, Cortum versicale de Flois swartibus, illis Deiriculis quæ omnes fere Minschos, Mannos, Weibras, Jungfras*, &c., *behuppere, et Spitzibus suis schnaflis steckere et bitere solent ; Autore Gripholdo Knickknackio ex Flolandia* (anno 1593, 4to.), of which he gives the introduction. A new edition of this work appeared in 1822, at Hamm ; and a translation at Leipsic, in 1827. We find an example of French maccaronic verses in the third interlude of Molière's *Malade imaginaire.* It was introduced into England in the reign of Henry VII, when Skelton exhibited some specimens of it. It was fashionable under Elizabeth, in whose reign a poem on the Armada, of which Warton gives a specimen, was written. Drummond also wrote a maccaronic poem, of which the following will be a sufficient specimen :—

Convocat extemplo burrowmannos atque ladœos,
Jackmannumque hiremannos, pleughdrivesters atque pleughmannos,
Tumblantesque simul, recoso ex kitchine boyos,
Hunc qui dirtiferas tersit cum dishclouty dishas, &c.

Macchiavelli, Niccolò. It is not easy to determine a man's disposition and character from his writings. When, however, as was the case in the governments of antiquity and the Italian republics of the middle ages, a man's writings are more the offspring of his political situation than mere exercises of his intellect, and especially if they coincide with his conduct, they afford fair grounds for judging of the author's character. This is the case with Niccolò Macchiavelli, the famous Florentine secretary. The prejudices against him, arising from an incorrect understanding of his treatise called *Il Principe* (the Prince), have caused him to be regarded as the teacher of a detestable line of policy, called from him *Macchiavellism*, intended to enable despotism to perpetuate its existence by fraud and violence, though there are few men on record who have shown so much of a truly civic spirit.—He was born at Florence, in the year 1469, of a noble family, whose members had enjoyed the highest dignities in the republic. Little is known of his youth, and nothing of his education, except that he studied under Marcellus Virgilius. On account of his distinguished talents, he was very early appointed chancellor of the Florentine republic, and, not long afterwards, was advanced to the post of secretary of state, for which reason he is most commonly called *Segretario Fiorentino.* When Florence had recovered her liberty, by the expulsion of the Medici (see *Medici*), and, from fear of the exiled family, had become involved in the ambitious wars and intrigues of Charles VIII, at a time when great political adroitness, and a spirit of genuine republicanism, were required in her envoys, Macchiavelli was several times charged with important embassies. He was four times plenipotentiary at the

French court, twice at that of the pope, and twice, also, at that of the emperor Maximilian. The republic acknowledged his great services, but rewarded them sparingly, so that he was sometimes obliged to petition the *signoria* (supreme authority of the state) on account of his poverty. His advice was of great use to the commonwealth, at the time of the insurrection of Val di Chiana. The leading principles of his counsels, at this juncture, may be deduced from his numerous letters, preserved in the Florentine archives. They were to maintain a peaceful and friendly spirit in the settlement of difficulties, to provide for an upright and strict administration of justice, to make the burden of taxes as light as possible, and to keep a watchful eye on the smallest circumstances that had relation to public concerns. Even in regard to military affairs, the state was so convinced of the sagacity of his views, that they preferred his counsel to any other. Among other things, a Tuscan legion was established by his advice. This band, at a later period, distinguished itself remarkably under the command of Giovanni de' Medici. When pope Julius II had succeeded in establishing a league in Italy against the overwhelming power of the French, Louis XII, to revenge himself, and wound the dignity of the pope in the tenderest point, attempted to assemble a council in Italy, and requested the Florentines to allow Pisa, which had become again subject to them, to be the place of meeting. Macchiavelli feared the papal thunders, and advised his countrymen to evade the proposal. He went with this view as envoy to the king, but the king would not be refused. After his return, he was sent to Pisa, to watch the proceedings of the council, and to labor for its dissolution. Nevertheless, the pope was so indignant against the Florentines, that he formed an alliance with Ferdinand of Arragon to deprive them of their freedom, and, by their means, the power of the Medici was reestablished. As Macchiavelli had labored incessantly for the good of the republic, Lorenzo de' Medici, now dictator of Florence, seized the opportunity, in spite of a public decree, to strip him of his dignities. He was afterwards accused of participating in the conspiracy of the Boscoli and Capponi against the cardinal Giovanni de' Medici, imprisoned, put to the torture, and banished; all which he endured with a firmness approaching to indifference. After the cardinal became pope (Leo X), his punishment was remitted. He returned to his native country, and wrote his discourses on the ten first books of Livy; also his Prince, which he dedicated to Lorenzo de' Medici. Upon this, he was received again into favor by this powerful family; and cardinal Julius, who ruled Florence in the name of Leo X, and earnestly desired to reform the condition of the place, availed himself of the advice of Macchiavelli, in extinguishing various civil commotions. He was suspected of being concerned in a new conspiracy against the Medici; but the only consequence was, that he was obliged to return to private life and to indigence. When Julius, under the name of Clement VII, ascended the papal chair, Macchiavelli was again employed in public business: in particular, he was sent to aid the allied forces of the pope and the Florentines in the defence of Tuscany against the army of Charles V. The confidence now reposed in him by the Medici alienated from him the affections of the Florentines; and, after his return to Florence, he died, June 22, 1527, neglected and poor. It appears, from the letters of his son Pietro to Francisco Nelli, that he manifested on his death-bed the feelings of a Christian. The account of the inaccurate Paolo Giovio, that he died a suicide and an atheist, is not to be depended on.—The writings of the immortal Florentine may be arranged under four heads,—history, politics, belles-lettres, and military treatises. His eight books on the history of Florence, written at the command of Clement VII, begin with the year 1215, and end with Lorenzo de' Medici, in the year 1492. They are among the first historical works of modern times, which deserve to be placed side by side with the beautiful remains of antiquity. Macchiavelli was probably prevented by death from completing this work, and is said to have left his collection of materials to Guicciardini. The history is distinguished for its pure, elegant and flowing style: its impartiality is doubtful. The Life of Castruccio Castracani, lord of Lucca, is more properly a romance than a biography. The hero, who is as great a villain as Cæsar Borgia, is continually quoting apothegms from Plutarch. Under the head of politics are included his two most important works—the Prince (of which more will be said hereafter), and the Discourses upon the ten first books of Livy. His purpose, in these last, is to show how a republic may be supported, and how it is exposed to ruin. The work breathes, throughout, a warm love of freedom. Filippo Nerli relates, in his commentaries, that Macchiavelli was induced to write these discourses, and those on the Art of War, by a number of young men who were accustomed to assemble with him in a garden in Florence, and had been made republicans by the perusal of the ancients. Montesquieu and Rousseau have both drawn freely from these works. In a treatise, composed in the year 1519, upon a reformation in the state of Florence, he advises the pope Leo X to restore the republican form of government to this city, although he pretends to have the aggrandizement of the Medici in view. His object in the seven books on the Art of War was, to show the Italians that they were able to recover their freedom without the assistance of the foreign mercenaries, so generally employed in the states of Italy; and he shows himself fully sensible of the great importance of infantry, then little valued. Frederic the Great knew and esteemed this treatise. For the restoration of the comic drama, also, the world is indebted to the Florentine secretary. His comedies, *La Mandragola* and *La Clizia*, are the first regular dramas written since the time of the Romans. Voltaire preferred the first to any of the plays of Aristophanes. His other poems are full of thought. The novel entitled *Belfagor* is very fine, and has been versified by La Fontaine. His description of the pestilence, which raged in Florence in the years 1522—3, may be compared to the similar account in Thucydides. He has written, also, many other treatises, all of which show the great man, and several poems. Among his papers is a constitution for the regulation of a gay company, called *Compagnia di Piacere*. The Prince has been often translated. The opinions on this work are very various. Some persons condemn it as intended to instruct tyrants in the art of oppression. This idea originated with the archbishop of Consa, Ambrosio Catarino, long after the book was given to the world. Bayle, in his famous dictionary, and Frederic the Great, in his Anti-Macchiavelli, which was translated, together with the Prince, by the order of Mustapha III, are of the same opinion. But they mistake Macchiavelli's meaning, for his other writings, as well as his life, prove that he loved liberty ardently. Others consider the Prince as a satire; but this is impossible. The tone of the work is most serious throughout: no trace of satire can be discovered. Others think it a work full of valuable counsel for princes, but infected with a looseness of morals which prevailed in the age of the writer: but Macchiavelli hated Alexander VI, Cæsar Borgia, and all the tyrants of his age; and the full consideration with which he advances his startling principles, shows that they could not have sprung from the unconscious influence of his time. They are well weighed and thoroughly understood. Others believe that Macchiavelli's object was to make tyrants odious; but tyrants, such as he describes, need no coloring to make them abhorred. Others maintain that Macchiavelli treated the question of tyranny, in the abstract, without reference to morality, not in order to give advice, but as a mere scientific question, on the ground of lord Bacon, that "there be not any thing in being or action which should not be drawn and collected into contemplation and doctrine;" just as a person might write a treatise on poisons, investigating all their effects, without touching on their antidotes. But could a mind like Macchiavelli's, if his object had been merely scientific discussion, have contemplated, long and closely, crimes so shocking to his love of liberty, without ever betraying his horror? Could we believe a man to possess a pure spirit, who could write a long and scientific treatise on the seduction of innocence, as skilful in its way as Macchiavelli's in his, though such a treatise might afford much interesting analysis of the springs of human conduct? In our opinion, the Prince must be considered as a work written for a certain purpose, time and person, although particular questions, doubtless, are often treated abstractly, and the application left open. As a whole, the Prince is not to be considered, originally, nor in its execution, as a mere scientific treatise. Many questions are left undiscussed; the titles of the chapters are often of a general nature, while the chapters themselves are not. Macchiavelli's feeling was, that union and freedom from a foreign yoke were even more important than civil liberty; that they formed the very elements of the life of a nation. In the first part of his career, he had been thoroughly Florentine in spirit, but his misfortunes forced him to elevate his views, to become Italian; and, for the purpose of saving Italy, he could have seen, with patience, even Florence enslaved. No noble-minded Italian has written or sung, since Dante's *di dolor ostello*, without giving vent to his grief for the unfortunate condition of his beautiful country; and Macchiavelli, one of the noblest spirits of Italy, burned to see her united and freed from foreigners. He sought the cure of Italy; yet her state appeared to him so desperate, that he was bold enough to prescribe poison. But it must be kept in mind that he does not advise all the measures which he discusses. He often treats them like mechanical principles in the abstract, and leaves the consideration of their expediency in practice to him who wishes to make the application. Undoubtedly Macchiavelli believed that many things are permitted for the purpose of uniting a distracted country, which would be criminal in any other case; and, to determine the true spirit of his famous work, the reader should have a full knowledge of the history of the age. If he had written at the present day, he must have recommended very different means. In the last chapter of the Prince, he calls upon Lorenzo of Medici to save his country. Lorenzo was the nephew of pope Leo X. Julian, brother to Leo, was expected to become king of Naples, while Lorenzo, a man of a warlike and fierce spirit, was expected to unite the country between the Tuscan and Adriatic seas, and to found a kingdom of Tuscany. On him all eyes were turned, and him it was Macchiavelli's purpose to urge to the deliverance of Italy. Macchiavelli was far from being alone in expecting salvation for Italy only from a conquering king. Polydore Virgil, in 1526, when he dedicated his work *De Prodigiis* to Francesco Maria of Urbino, expressed this opinion. Twenty years earlier, John Anthony Flaminius said the same to pope Julius; and Varchi says, "Italy cannot be tranquil until ruled by one prince." Some of the best observations on Macchiavelli are to be found in a work probably little known to our readers,—professor Ranke's *Zur Kritik neuerer Geschichtschreiber* (Berlin and Leipsic, 1824).—In regard to Macchiavelli's personal character, even his enemies acknowledge that he was kind and affable, a friend of the virtuous, industrious and brave. He was one of the greatest thinkers of his age, indefatigable in the service of his country, and frugal in his manner of life. He well deserves the inscription placed over his tomb in the church of Santa Croce, in Florence—

Tanto nomini nullum par elogium,
Nicolaus Macchiavelli,
Obiit An. A. P. V. MDXXVII.

The reader will recollect the stanza in Childe Harold (canto 4, stanza liv), in which his remains are described as lying in company with those of Galileo, Michael Angelo and Alfieri.

Macchiavellism, in politics; that system of policy which overlooks every law, and makes use of any means, however criminal, to promote its purposes. The word originated from an erroneous view of Macchiavelli's Prince. (See *Macchiavelli.*)

Macdonald, Etienne-Jacques-Joseph-Alexandre, marshal and peer of France, duke of Tarentum, minister of state, and grand chancellor of the legion of honor, was born at Sancerre, in France, Nov. 17, 1765, and descended from a Scotch Highland family. His father fought, with 20 other Macdonalds, at Culloden, in 1745, for the Pretender, Charles Edward, kept him concealed for many weeks, and afterwards went to France. The young Macdonald entered the French service in 1784, and was attached to the legion of the lieutenant-general count Maillebois, which was sent to Holland, to support the opponents of the hereditary stadtholder. He embraced the principles of the revolution, rose rapidly to the dignity of brigadier-general, in the war of 1792, and served with distinction in 1794, under Pichégru, in the army of the north in Holland and East-Friesland. In 1796, he commanded at Düsseldorf and Cologne, as general of division, soon after joined the army of the Rhine, and at length that of Italy, under Bonaparte, where he established his military reputation. After the peace of Campo-Formio, he was in the army under Berthier, which took possession of Rome and the States of the Church, and, as governor of the latter, he declared Rome a republic. But Mack advanced to Rome with 50,000 men, and Macdonald was forced to fall back with his troops to the army of the French commander-in-chief, Championnet. The latter was soon strong enough to venture an attack, and Macdonald contributed essentially to the victories at Trento, Monterosi, Baccano, Calvi and Civitá-Castellana. Dec. 14, he marched into Rome the second time. After the removal of Championnet, in the spring of 1799, he was made general of the French army in Naples. While he was here carrying on war against cardinal Ruffo and the Calabrians, Suwaroff and Melas had conquered Lombardy, and advanced to Turin. By skilful marches, Moreau defended the frontiers of France and the passes to Genoa. He then advanced to form a junction with Macdonald, who had evacuated Lower Italy. But, instead of pursuing his march covertly to Genoa, Macdonald, ambitious to defeat the enemy alone, marched through Modena, Parma and Piacenza, on the road to Voghera. He, indeed, drove the Austrians, under Hohenzollern, from their position at Modena, June 12, 1799; but Suwaroff and Melas pursued him over the Tidone, June 17, and at Trebia, not far from Piacenza, on the 18th and 19th, totally defeated his army, exhausted with long marches and bloody actions. Macdonald was wounded, and obliged to retire to Tuscany, with his army reduced to 22,000 men. Moreau now restrained the conqueror from further pursuit, and Macdonald succeeded in ascending the Apennines, and forcing his way along the coast to Genoa, to Moreau. Soon after, he went to Paris, and coöperated in the revolution of the 18th Brumaire. Dec. 1, 1800, he conducted the corps of reserve over the Splügen, into the Grisons, and entered the Valteline. After the peace of Lunéville, he was, for a time, French ambassador in Denmark, from which he returned in 1803, and received the title of grand officer of the legion of honor. His zeal in defending Moreau prevented him from being made a marshal of the empire among the generals on whom this office was first conferred, in 1804. In the campaign of 1809, he passed the Piave with the right wing of the viceroy, took Laybach, and decided the victory of Wagram. In recompense for his services in that action, the emperor created him marshal on the field, adding, "I am principally indebted to you and my artillery guards for this victory." In 1810, he took the command of Augereau's division in Catalonia, and maintained his fame as a general, both here and in the war against Russia, in 1812. The capitulation of the Prussians, under York, who belonged to his army, forced him to retreat upon Königsberg, Jan. 3, 1813. In May, 1813, he took Merseburg, and was present in the battles of Lützen and Bautzen, and was defeated by Blücher on the Katzbach (q. v.). At Leipsic, Oct. 18, he commanded the 11th division. He also distinguished himself at Hanau, and in the bloody campaign between the Marne and Seine. At the time of Napoleon's catastrophe, in 1814, he had several audiences with Alexander, in favor of the emperor. Macdonald was the first to advise the abdication, after which he sent in his adherence to Louis XVIII.* During the hundred days (1815), he resided on his estates. After Napoleon's final overthrow, he was made chancellor of the legion of honor, and was directed to disband the army of the Loire. He has distinguished himself in the chamber of peers not less by the justness and liberality of his sentiments than by his fidelity to the king and constitution. In 1825, he attended Charles X to the coronation at Rheims, and afterwards visited England, Scotland and Ireland.

Mace. Clubs of various descriptions are found among almost all savages, formed of a hard and heavy wood, some broad and flat, others round, angular, long or short, some plain and rude, others neatly carved. From this simple implement, the mallet, hammer of arms and mace originated, which were generally used, of old, both in Great Britain and on the continent of Europe. The gradual progress of improvement having rendered armor impenetrable by edged weapons, some instrument of effectual demolition became necessary. An author on military affairs, of the sixteenth century, recommends a leaden mallet, five feet long. The mallet was wielded with both hands, and horsemen had it hung by a thong or chain from the pommel of the saddle. The hammer of arms greatly resembled a common hammer. It differed from the mallet in being square or a little rounded or convex, while one side of the mallet was square and the other pointed or edged. The mace, in its simplest form, is only an iron club, short and strong. Its shape varied among different nations and at different times. One, still preserved, is of iron, two feet one inch long, with a hollow handle, and a head seven inches long, consisting of seven iron leaves perpendicularly fixed round a cylinder, and equidistant. The whole weighs three pounds nine ounces. Two maces, said to have belonged to Roland and Olivier de Roncevaux, famous champions under Charlemagne, were preserved in France towards the beginning of the last century, and perhaps later, consisting of a handle two feet long, to which an iron ball was attached by a triple chain. It appears that the ball was frequently covered with iron spikes, and was attached to the handle by a single chain. Mr. Grose states, that similar implements were long used by the trained bands of London, under the name of *morning stars.* (See *Battle-Axe*, and *Arms.*) At present, the mace is used as an emblem of the authority of officers of state (e. g. the speaker of the English house of commons), before whom it is carried. It is made of the precious metals, or of copper, gilt, and ornamented with a crown, globe and cross.

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* Bourrienne describes, in a touching manner, his final interview with Napoleon.

Mace; the outer, fleshy and coriaceous cover of the nutmeg. When the fruit is gathered, the mace is carefully separated from the nut, dried in the sun, and afterwards is packed in chests of different sizes, in which state it is obtained in commerce. (See *Nutmeg*.)

Macedonia (now Makdonia or Filiba Vilajeti, a territory containing 15,250 square miles, and 700,000 inhabitants); the northern part of the peninsula in Europe, inhabited by the Greeks, a mountainous and woody region, the riches of which consisted chiefly in mines of gold and silver; the coasts, however, produced corn, wine, oil and fruits. It was separated from Thessaly on the south by the Olympus and the Cambunian mountains (now Monte di Voluzzo); and on the west, from Epirus, by the Pindus (now Stymphe). In regard to the eastern, northern and north-western boundaries, we must distinguish between the time before and after Philip, the father of Alexander. Before his time, all the country beyond the Strymon (Strumona), and even the Macedonian peninsula from Amphipolis to Thessalonica, belonged to Thrace; and Pæonia, likewise, on the north. On the north-west, towards Illyria, it was bounded by lake Lychnitis (Achrida). Philip conquered this peninsula, all the country to the river Nessus (Karasu) and mount Rhodope; also Pæonia and Illyria, beyond lake Lychnitis. Thus the widest limits of Macedonia were from the Ægean sea to the Ionian, where the Drino formed its boundary. The provinces of Macedonia were, in general, known by name even before the time of Herodotus. In the time of Philip, they were 19. The Romans divided the country into four districts—the eastern on the Strymon and Nessus (chief city, Amphipolis); the peninsula (capital, Thessalonica); the southern, including Thessaly (capital, Pella); and the northern (chief city, Pelagonia). They made Illyria a separate country. Macedonia was inhabited by two different races—the Thracians, to whom belonged the Pæonians and Pelagonians, and the Dorians, to whom the Macedonians are shown to have belonged by their language and customs. Pliny speaks of 150 different tribes, who dwelt here at an early period; but we have no particular accounts of them. The Macedonians were a civilized people long before the rest of the Greeks, and were, in fact, their instructers; but the Greeks afterwards so far excelled them, that they regarded them as barbarians. They were divided into several small states, which were incessantly at war with the Thracians and Illyrians, till Philip and Alexander gave the ascendency to one of these states, and made it the most powerful in the world. We have no particular account of this state, but it is known to have been a limited monarchy; to have been tributary, for a long time, to the Illyrians, Thracians and Persians, and to have been obliged to give up all its harbors to the Athenians. The succession of its kings begins with the Heraclide Caranus, but first becomes important with the accession of Philip (q. v.). That prince, taking advantage of the strength of the country and the warlike disposition of its inhabitants, reduced Greece, which was distracted by intestine broils, in the battle of Chæronea, B. C. 338. His son, Alexander (q. v.), subdued Asia, and by an uninterrupted series of victories, for 10 successive years, made Macedonia, in a short time, the mistress of half the world. After his death, this immense empire was divided. Macedonia received anew its ancient limits, and, after several battles, lost its dominion over Greece. The alliance of Philip II with Carthage, during the second Punic war, gave occasion to this catastrophe. The Romans delayed their revenge for a season; but, Philip having laid siege to Athens, the Athenians called the Romans to their assistance; the latter declared war against Macedonia; Philip was compelled to sue for peace, to surrender his vessels, to reduce his army to 500 men, and defray the expenses of the war. Perseus, the successor of Philip, having taken up arms against Rome, was totally defeated at Pydna by Paulus Æmilius, B. C. 168, and the Romans took possession of the country. Indignant at their oppressions, the Macedonian nobility and the whole nation rebelled under Andriscus. But, after a long struggle, they were overcome by Quintus Cæcilius Macedonicus, the nobility were exiled, and the country became a Roman province, B. C. 148. Macedonia now forms a part of Turkey in Europe, and is inhabited by Walachians, Turks, Greeks and Albanians. The south-eastern part is under the pacha of Saloniki; the northern, under beys or agas, or forms free communities. The capital, Saloniki, the ancient Thessalonica, is a commercial town, and contains 70,000 inhabitants.—See *the History and Antiquities of the Doric Race*, translated from the German of C. O. Müller (Oxford, 1830).

Maceration (from *macero*, to soften by water) consists in the infusion of substances in cold water, in order to extract their virtues. It differs from digestion only as the latter operation admits the application of heat. Maceration is preferable in cases where heat would be injurious, as where volatile and aromatic substances are used.

Machaon. (See *Æsculapius.*)

Machinery. The utility of machinery, in its application to manufactures, consists in the addition which it makes to human power, the economy of human time, and in the conversion of substances apparently worthless into valuable products. The forces derived from wind, from water and from steam are so many additions to human power, and the total inanimate force thus obtained in Great Britain (including the commercial and manufacturing) has been calculated, by Dupin, to be equivalent to that of 20,000,000 laborers. Experiments have shown that the force necessary to move a stone on the smoothed floor of its quarry is nearly two thirds of its weight; on a wooden floor, three fifths; if soaped, one sixth; upon rollers on the quarry floor, one thirty second; on wood, one fortieth. At each increase of knowledge, and on the contrivance of every new tool, human labor is abridged: the man who contrived rollers quintupled his power over brute matter. The next use of machinery is the economy of time, and this is too apparent to require illustration, and may result either from the increase of force, or from the improvement in the contrivance of tools, or from both united. Instances of the production of valuable substances from worthless materials are constantly occurring in all the arts; and though this may appear to be merely the consequence of scientific knowledge, yet it is evident that science cannot exist, nor could its lessons be made productive by application, without machinery. In the history of every science, we find the improvements of its machinery, the invention of instruments, to constitute an important part. The chemist, the astronomer, the physician, the husbandman, the painter, the sculptor, is such only by the application of machinery. Applied science in all its forms, and the fine and useful arts, are the triumphs of mind, indeed, but gained through the instrumentality of machinery. The difference between a tool and a machine is not capable of very precise distinction, nor is it necessary, in a popular examination of them, to make any distinction. A tool is usually a more simple machine, and generally used by the hand; a machine is a complex tool, a collection of tools, and frequently put in action by inanimate force. All machines are intended either to produce power, or merely to transmit power and execute work. Of the class of mechanical agents by which motion is transmitted,—the lever, the pulley, the wedge,—it has been demonstrated that no power is gained by their use, however combined. Whatever force is applied at one part, can only be exerted at some other, diminished by friction and other incidental causes; and whatever is gained in the rapidity of execution, is compensated by the necessity of exerting additional force. These two principles should be constantly borne in mind, and teach us to limit our attempts to things which are possible. (See *Hydraulics*, *Hydrostatics*, *Mechanics*, *Steam.*)—1. *Accumulating Power.* When the work to be done requires more force for its execution than can be generated in the time necessary for its completion, recourse must be had to some mechanical method of preserving and condensing a part of the power exerted previously to the commencement of the process. This is most frequently accomplished by a fly-wheel, which is a wheel having a heavy rim, so that the greater part of the weight is near the circumference. It requires great power, applied for some time, to set this in rapid motion, and, when moving with considerable velocity, if its force is concentrated on a point, its effects are exceedingly powerful. Another method of accumulating power consists in raising a weight, and then allowing it to fall. A man, with a heavy hammer, may strike repeated blows on the head of a pile without any effect; but a heavy weight, raised by machinery to a greater height, though the blow is less frequently repeated, produces the desired effect.—2. *Regulating Power.* Uniformity and steadiness in the motion of the machinery are essential both to its success and its duration. The governor, in the steam-engine, is a contrivance for this purpose. A vane or fly of little weight, but large surface, is also used. It revolves rapidly, and soon acquires a uniform rate, which it cannot much exceed; because any addition to its velocity produces a greater addition to the resistance of the air. This kind of fly is generally used in small pieces of mechanism, and, unlike the heavy fly, it serves to destroy, instead of to preserve, force.—3. *Increase of Velocity.* Operations requiring a trifling exertion of force may become fatiguing by the rapidity of motion necessary, or a degree of rapidity may be desirable beyond the power of muscular action. Whenever the work itself is light, it becomes necessary to increase the velocity in order to economize time. Thus twisting the fibres of wool by the fingers would be a most tedious operation. In the common spinning-wheel, the velocity of the foot is moderate, but, by a simple contrivance, that of the thread is most rapid. A band, passing round a large wheel, and then round a small spindle, effects this change. This contrivance is a common one in machinery.—4. *Diminution of Velocity.* This is commonly required for the purpose of overcoming great resistances with small power. Systems of pulleys afford an example of this: in the smoke-jack, a greater velocity is produced than is required, and it is therefore moderated by transmission through a number of wheels.—5. *Spreading the Action of a Force exerted for a few Minutes over a large Time.* This is one of the most common and useful employments of machinery. The half minute which we spend daily in winding up our watches is an exertion of force which, by the aid of a few wheels, is spread over twenty-four hours. A great number of automata, moved by springs, may be classed under this division.—6. *Saving Time in natural Operations.* The process of tanning consists in combining the tanning principle with every particle of the skin, which, by the ordinary process of soaking it in a solution of the tanning matter, requires from six months to two years. By enclosing the solution, with the hide, in a close vessel, and exhausting the air, the pores of the hide being deprived of air, exert a capillary attraction on the tan, which may be aided by pressure, so that the thickest hides may be tanned in six weeks. The operation of bleaching affords another example. —7. *Exerting Forces too large for human Power.* When the force of large bodies of men or animals is applied, it becomes difficult to concentrate it simultaneously at a given point. The power of steam, air or water is employed to overcome resistances which would require a great expense to surmount by animal labor. The twisting of the largest cables, the rolling, hammering and cutting of large masses of iron, the draining of mines, require enormous exertions of physical force, continued for considerable periods. Other means are used when the force required is great, and the space through which it is to act is small. The hydraulic press can, by the exertion of one man, produce a pressure of 1500 atmospheres.—8. *Executing Operations too delicate for human Touch.* The same power which twists the stoutest cable, and weaves the coarsest canvass, may be employed, to more advantage than human hands, in spinning the gossamer thread of the cotton, and entwining, with fairy fingers, the meshes of the most delicate fabric.—9. *Registering Operations.* Machinery affords a sure means of remedying the inattention of human agents, by instruments, for instance, for counting the strokes of an engine, or the number of coins struck in a press. The tell-tale, a piece of mechanism connected with a clock in an apartment to which a watchman has not access, reveals whether he has neglected, at any hour of his watch, to pull a string in token of his vigilance.—10. *Economy of Materials.* The precision with which all operations are executed by machinery, and the exact similarity of the articles made, produce a degree of economy in the consumption of the raw material which is sometimes of great importance. In reducing the trunk of a tree to planks, the axe was formerly used, with the loss of at least half the material. The saw produces thin boards, with a loss of not more than an eighth of the material.—11. *The Identity of the Result.* Nothing is more remarkable than the perfect similarity of things manufactured by the same tool. If the top of a box is to be made to fit over the lower part, it may be done by gradually advancing the tool of the sliding rest; after this adjustment, on additional care is requisite in making a thousand boxes. The same result appears in all the arts of printing: the impressions from the same block, or the same copperplate, have a similarity which no labor of the hand could produce.—12. *Accuracy of the Work.* The accuracy with which machinery executes its work is, perhaps, one of its most important advantages. It would hardly be possible for a very skilful workman, with files and polishing substances, to form a perfect cylinder out of a piece of steel. This process, by the aid of the lathe and the sliding rest, is the every day employment of hundreds of workmen. On these two last advantages of machinery depends the system of copying, by which pictures of the original may be multiplied, and thus almost unlimited pains may be bestowed in producing the model, which shall cost 10,000 times the price of each individual specimen of its perfections. Operations of copying take place, by printing, by casting, by moulding, by stamping, by punching, with elongation, with altered dimensions. A remarkable example of the arts of copying lies before the eye of the reader in these pages. 1. They are copies obtained by printing from stereotype plates. 2. Those plates are copies obtained (by casting) from moulds formed of plaster of Paris. 3. The moulds are copies obtained by pouring the plaster, in a liquid state, upon the movable types. 4. The types are copies (by casting) from moulds of copper, called *matrices.* 5. The lower part of the matrices, bearing the impressions of the letters or characters are copies (by punching) from steel punches, on which the same characters exist in relief. 6. The cavities in these steel punches, as in the middle of the letters *a*, *b*, &c., are produced from other steel punches in which those parts are in relief. (For machinery, in political economy, see *Labor-saving Machines.*)

Machinery, in poetry. (See *Poetry.*)

Mack, Charles, baron von; an Austrian general, born in Franconia, in 1752. On leaving college, his inclination led him to enlist as a private in a regiment of dragoons, and his good conduct soon obtained him the rank of a petty officer. In the war with Turkey, he obtained a captain's commission. His spirit of enterprise procured him the favor of Laudon, who recommended him to the emperor. On the occurrence of war with France, Mack was appointed quarter-master-general of the army of the prince of Coburg, and directed the operations of the campaign of 1793. In 1797, he succeeded the arch-duke Charles in the command of the army of the Rhine. The following year, he was sent to Naples, then invaded by the French; but, being beaten in the field, and suspected of treason by the Neapolitans, he fled to the French camp, and was sent as a prisoner to Dijon. He found means to justify his conduct in the opinion of the emperor, who, in 1804, constituted general Mack commander-in-chief in the Tyrol, Dalmatia and Italy. In 1805, Napoleon forced him to retreat beyond the Danube, and to submit to the famous capitulation of Ulm, by which 28,000 of the Austrians became prisoners. Mack was permitted to go to Vienna, where he was tried before a military tribunal, and received the sentence of death as a traitor to his country. His doom, however, was commuted by the emperor for imprisonment; and he was, after a time, released, and died in obscurity, in 1828.

Mackean, Thomas, an eminent American judge and revolutionary patriot, was born March 19, 1734, in the county of Chester, Pennsylvania. After an academic and professional course of studies, he was admitted an attorney, at the age of 21, and soon obtained the appointment of deputy attorney-general in the county of Sussex. In 1757, he was admitted to the bar of the supreme court of Pennsylvania, and, in the same year, elected clerk of the house of assembly. In October, 1762, he was elected a member of the assembly for the county of Newcastle, and was annually returned for seventeen successive years, although he resided in Philadelphia for the last six years of that period. Wishing to decline a re-election, he went to Newcastle in 1779, and stated his purpose. A committee then waited upon him to request that he would designate seven persons in whom they might confide as representatives of that county. He was finally obliged to comply with this flattering request, and the gentlemen whom he named were chosen by a large majority. Mr. Mackean was sent to the general congress of the colonies, which assembled at New York in 1765. He, Lynch and Otis formed the committee who framed the address to the British house of commons. In 1765, he was appointed judge of the court of common pleas and of the orphan's court for the county of Newcastle. In November term, 1765, and February term, 1766, he was one of the bench that ordered the officers of the court to proceed in their duties, as usual, on unstamped paper. In 1771, judge Mackean was appointed collector of the port of Newcastle. When measures were adopted to assemble the general congress of 1774, he took an active part in them, and was appointed a delegate from the lower counties in Delaware. September 5, he took his seat in that body, and served in it eight consecutive years and a half, being annually re-elected until February, 1, 1783. He was the only man who was, without intermission, a member during the whole period. He was president of the body in 1781. Though a member of congress till 1783, yet from July, 1777, he held the office and executed the duties of chief-justice of Pennsylvania. He was particularly active and useful in promoting the declaration of independence, which he signed. A few days after that event, he marched, with a battalion, of which he was colonel, to Perth Amboy in New Jersey, to support general Washington, and behaved with gallantry in the dangerous skirmishes which took place while he remained with the army. He returned to Delaware to prepare a constitution for that state, which he drew up in the course of a night, and which was unanimously adopted the next day by the house of assembly. In 1777, he acted as president of the state of Delaware. At that period, as he relates, he was hunted like a fox, by the enemy; he was compelled to remove his family five times in a few months, and at length placed them in a little log house, on the banks of the Susquehannah; but they were soon obliged to leave this retreat, on account of the Indians. July 28, 1777, he received the commission of chief-justice of Pennsylvania, which office he discharged 22 years, and gave striking proofs of ability, impartiality and courage. Some of these are related in the Biography of the Signers to the Declaration of Independence. Judge Mackean was a member of the convention of Pennsylvania that ratified the constitution of the U. States, which he supported in a masterly speech. As a delegate to the Pennsylvania convention of 1788, he aided in forming the present constitution of Pennsylvania. In 1799, he was elected governor of that state, as a leader of the democratic, contradistinguished from the federal party. As governor, he had an arduous task to perform, and he was equal to it, but he betrayed the party politician too often, in the course of his administration, which lasted for nine years, the constitutional limit. In 1803, it was proposed to him to become a candidate for the office of vice-president of the U. States; but he declined. In 1808, he retired from public life, in which he had been engaged for fifty years, and died June 24, 1817, in his 84th year. He was one of the fathers of the republic, and in this quality will be honored, aside from the resentments which his proceedings as a party politician engendered.

Mackenzie, Henry, a novelist and miscellaneous writer, whom sir W. Scott, in the dedication of Waverley, calls the *Scottish Addison*, was born in Scotland, in 1745, and, after completing his preliminary education, became attorney in the court of exchequer, in Scotland. He had previously resided in London, for professional purposes, and, while there, wrote his first production, the Prince of Tunis, a tragedy, which was favorably received. His passion for elegant literature led him to devote his leisure hours to polite studies, and made him the friend and associate of the most eminent scholars of Edinburgh. In 1771, his Man of Feeling appeared, and was followed, a few years after, by the Man of the World, and, at a later period, by Julia de Roubigné. These works are distinguished by sweetness and beauty of style, tenderness and delicacy of imagination, and deep pathos, which rendered them extensively and deservedly popular. A club of literary gentlemen, in Edinburgh, to which Mackenzie belonged, were accustomed to read essays on various subjects, at their meetings, and, at his suggestion, and under his direction, a series of them was published (from 1778), under the title of the Mirror; he afterwards conducted a similar publication, under the title of the Lounger, to both of which he communicated a large portion of the essays. In these, united with his usual grace of style, he displayed a power of wit and humor, in rallying the follies of his age, which we do not discover in his novels. It is worthy of memory that, in his essays in the Lounger, he was the first to bring Burns forward to the public notice. To the royal society of Edinburgh, and to the Highland society, he made many valuable communications, and was the author of the report to the latter on the controversy concerning the poems of Ossian, in which he maintains their authenticity. This report was published separately (1805), and contains much valuable information relative to Gaelic poetry. While thus active in literary pursuits, Mackenzie discharged, for a long time, the laborious duties of controller of taxes for Scotland, and was the delight and ornament of the society which he frequented. He died at a very advanced age, Jan. 14, 1831. (See Scott's *Lives of the Novelists*.)

Mackenzie, sir Alexander; originally a Canadian merchant, engaged in the north-west fur trade. In 1789, he determined to undertake a journey, with the view of penetrating to the coast of the Northern Polar ocean. He set out from fort Chippewyan, June 3, crossed the Slave lake, and descended the river which now bears his name. July 12, his party reached a spot where the river expanded into a lake, on which they pursued their course till, by the rising of the tide, and the presence of whales, it was obvious that they were near the sea. They were now nearly in the latitude at which Hearne found the Coppermine river to fall into the sea, but about 30° more in longitude to the west. By this journey, Mr. Mackenzie added one more link to the chain of discoveries in the North. He reached fort Chippewyan, on his return, September 4, having been absent 102 days. In October, 1792, he undertook a still more arduous journey across the continent, to the shore of the North Pacific. He encountered innumerable difficulties, and suffered greatly, before he could accomplish his purpose; but at length, July 12, 1793, he arrived on the coast of the Pacific, near cape Menzies, in latitude 52°. In 1801, having returned to England, he published his Voyage through North America to the Frozen and Pacific Oceans, in 1789 and 1793 (4to.); and, in the following year, he received, as a reward for his exertions, the honor of knighthood.

Mackenzie's River; a river of North America. In the first part of its course, it flows N. E. to the Lake of the Hills, under the name of the *Unigah*, or *Peace river;* thence to Slave lake, it is called *Slave river;* it then takes the name of *Mackenzie's river*, and flows 780 miles N. into the Arctic sea; lon. 130° to 135° W.; lat. 69° 14′ N. Its whole course is about 2000 miles. (*See preceding article.*)

Mackerel (*scomber*). This is a tribe of migratory fishes, which annually visit our coast, and is among the most celebrated of that class, for its numbers, and for the great use made of it in a salted state. The European mackerel (*S. scomber*) was early known as an article of food, and was held in high esteem by the ancient Romans, as forming the celebrated *sarum*, a pickle, or sauce, of which they made great use. This was prepared from several different kinds of fishes, but that from the mackerel was deemed by far the best. The mackerel is easily taken, by a variety of baits, and the capture always succeeds best during a gentle breeze of wind, which is hence termed a *mackerel breeze* by seamen. At such a time, the usual bait is a bit of red cloth, a colored feather, &c. This fish, when alive, possesses great symmetry of form and brilliancy of colors, which are much impaired by death, though not wholly obliterated. It is said, that, in the spring, their eyes are almost covered with a white film, which grows in the winter, and is regularly cast at the beginning of summer, before which they are half blind. There are several species of mackerel on the coast of the U. States, the most common of which the *S. vernalis*, closely resembles the European species.

Mackinac. (*See Michilimackinac.*)

Mackintosh, sir James, eminent as a jurist, a statesman, and a writer,—equally distinguished for his extensive learning, his large views, and his liberal principles in law, politics and philosophy,—is descended of an ancient Scotch family, and was born in the parish of Dorish, county of Inverness, Scotland, in 1765. After studying at the school of Fortrose, in Ross-shire, he was sent to King's college, Aberdeen, and spent three years at Edinburgh, chiefly in medical studies. He received his medical degree in 1787; but his attention had already been drawn to general literature; history, and moral, political and speculative philosophy, and his inclination soon led him to abandon his profession. In 1789, we find him in London, where he published a pamphlet on the regency question, which, on account of the sudden recovery of the king, attracted little notice. A visit to the continent, at that interesting period, contributed to excite his sympathies for the French, and he published a reply to the celebrated Reflections of Burke, under the title of *Vindiciæ Gallicæ*, or Defence of the French Revolution (1792), a work which laid the foundation of his fame, and acquired for him the friendship both of Fox and his great antagonist. About this time, Mr. Mackintosh entered himself as a student of Lincoln's Inn, was soon called to the bar by that society, and commenced the practice of the law. Having obtained permission, though not without much difficulty, to deliver a course of lectures in the hall of Lincoln's Inn, on the law of nations, he published his Introductory Lecture, under the title of a Discourse on the Law of Nature and Nations. The ability which it displayed obtained him a large audience, including some of the most distinguished men of the country. On the trial of Peltier for a libel against Bonaparte (then first consul of France), in which the prosecution was conducted by Mr. Percival, the attorney-general (afterwards first minister of state), and Mr. Abbot (the present lord Tenterden), the defence was conducted by Mr. Mackintosh, as sole counsel, "in the most brilliant speech," says sir W. Scott, "ever made at bar or in forum," which at once established his reputation as an advocate and an orator. The recordership of Bombay, with the dignity of knighthood, was soon after conferred on him, and, besides the discharge of the duties of his office, the nine years which he spent in India were marked by his exertions in the amelioration of the criminal law, the foundation of the Literary Society in Bombay, and his valuable communications in the Asiatic Register. While sitting on an admiralty cause, he declared that that court was bound to decide by the law of nations, and not (as had been maintained by one of the judges in England) by any direction from the king or his ministers. Soon after his return to England, sir James was returned a member of the house of commons, for the county of Nairn, in Scotland (1813), and has since sat for the borough of Knaresborough, in Yorkshire, in the influence of lord Fitzwilliam. When he first entered the house, he did not appear equal to his reputation; but, in the succeeding sessions, he took his stand among the first parliamentary speakers. To an intimate acquaintance with the common and civil law, he adds the rarer character of a generous statesman; and there are few instances in which finer reasoning, or deeper learning in the history of nations, and the influence of human laws upon the feelings, passions and interests of the human race, have been sustained, developed and enforced by a more manly and vigorous eloquence. His greatest efforts were directed to the amendment of the criminal code, which had been undertaken by sir Samuel Romilly, and was taken up as a solemn bequest by his friend and representative. The escape of Napoleon from Elba, the congress of Laybach, the Irish Catholics, the oppression of the Greeks, Scotch juries, the trial of the queen, are a few of the subjects on which he has exerted his eloquence. Sir James was, for some time, lord rector of the university of Scotland. He is also the author of a celebrated review (*Edinburgh Rev.*, vols. 27 and 36) of Stewart's Discourse on the Progress of Metaphysical Science, and of a Discourse on the Progress of Ethical and Political Science, prefixed to the new edition of the Encyclopædia Britannica, and published separately (4to., 1830). His History of England is not a detailed narrative of events, but a rapid, yet clear, profound and philosophic view of the state and progress of society, law, government and civilization in England, in which the lessons of experience, the character of men and events, the circumstances which have promoted, retarded, modified the social and political improvement of the English nation, are unfolded and judged with the acuteness of a philosopher and the wisdom of a practical statesman. His style is simple, clear, graceful and elegant, and often rises to eloquence, when the historian traces out the growth of liberty, and the influence of generous institutions. In July 1831, he made an eloquent speech in favor of reform.

Macklin, Charles, an actor and dramatist of some celebrity, was born in Ireland, 1690, and was employed in Dublin, as a barge-man, until his 21st year, when he went to England, and joined a company of strolling comedians. In 1716, he appeared as an actor in the theatre at Lincoln's-Inn-fields. It was not, however, until 1741, that he established his fame as an actor, by his admirable performance of Shylock, that being, indeed, the only character in which he stood preëminent. He continued on the stage until 1789, which long interval was marked by the usual vicissitudes of theatrical life, rendered still greater by the temper of the individual. During the last years of his life, his understanding became impaired, and in this state he died, July 11, 1797, at the age of 107. His Man of the World, a comedy, discovers a keen knowledge of life and manners, and exposes meanness, sycophancy, and political servility, with considerable skill. His Love A-la-mode also possesses kindred merit. Macklin was an entertaining companion, although dictatorial, and very irascible.

Macknight, James, a learned Scottish divine, born in 1721, was educated at Glasgow and Leyden, and, on his return, was ordained minister of Maybole, where he remained 16 years, and composed his Harmony of the Gospels, and his New Translation of the Epistles. In 1763, he published his Truth of the Gospel History. In 1772, he became one of the ministers of Edinburgh. Dr. Macknight employed nearly 30 years in the execution of his last and greatest work, on the apostolical epistles—a New literal Translation from the Greek of all the Apostolical Epistles, with Commentaries and Notes, philological, critical, explanatory and practical (1795, 4 vols., 4to.). He died in 1800.

Maclaurin, Colin; a celebrated mathematician and philosopher, born in Scotland, in 1698. He studied at Glasgow, where he took the degree of M. A. at the age of 15, and defended a thesis on the Power of Gravitation. In 1717, he obtained the mathematical chair in the Marischal college at Aberdeen, and, two years after, was chosen a fellow of the royal society. In 1725, he was elected professor of mathematics at Edinburgh, where his lectures contributed much to raise the character of that university as a school of science. A controversy with bishop Berkeley led to the publication of Maclaurin's great work, his Treatise on Fluxions (Edinburgh, 1742, 2 vols., 4to.). He died June 14, 1746. He was the author of a Treatise on Algebra; an Account of Sir Isaac Newton's Philosophical Discoveries; papers in the Transactions of the Royal Society; and other works.

Macpherson, James; a Scottish writer, distinguished in literary history for his translations or imitations of Gaelic poems, said to have been composed in the third century. He was born in 1738, and studied at Aberdeen and Edinburgh. Having published Fragments of Ancient Poetry, translated from the Gaelic or Erse Language, a subscription was raised to enable him to collect additional specimens of national poetry. He produced, as the fruit of his researches, Fingal, an ancient Epic Poem, translated from the Gaelic (1762, 4to.); Temora, and other Poems (1763, 4to.); professedly translated from originals by Ossian, the son of Fingal, a Gaelic prince of the third century, and his contemporaries. (For an account of the controversy on this subject, see *Ossian.*) From the evidence of the contending parties, it may be concluded, that Macpherson's prose epics were founded on traditional narratives current among the Highlanders; but the date of the oldest of their lays is comparatively modern; and it is now difficult, if not impossible, to ascertain the precise extent of his obligations to the Gaelic bards of former ages. Mr. Macpherson was afterwards agent to the nabob of Arcot, in consequence of which he had a seat in the house of commons from 1780 to 1790. He died in 1796, and was interred in Westminster abbey. He was also the author of a prose translation of Homer's Iliad, and of some other works.

Macrabiotics (from μακρος, long, and βιος, life); the science of prolonging life. Hufeland called his well known work *Makrabiotik*, or the Art of prolonging human Life. (See *Longevity.*)

Macrobius, Aurelius Ambrosius Theodosius; a Latin author, in the reign of the emperor Theodosius, to whom he officiated as an officer of the wardrobe, and enjoyed a considerable share of the imperial favor. The country of his birth, as well as the religion which he professed, are both uncertain. He was the author of a miscellaneous work, entitled *Saturnalia*, curious for its criticisms, and valuable for the light it throws upon the manners and customs of antiquity; a commentary on Cicero's *Somnium Scipionis*, in two books, valuable for the exposition it affords of the doctrines of Pythagoras, with respect to the harmony of the spheres; and a treatise *De Differentiis et Societatibus Græci Latinique Verbi*. There are several editions of this author's writings, the best of which are those of 1670, Leyden, and 1774, Leipsic. He is supposed to have died about the year 420.

Madagascar; an island of Africa, on the eastern coast, separated from the continent by the channel of Mozambique, which is about 270 miles across. It extends from 11° 57′ to 25° 40′ S. lat., and from 43° 33′ to 50° 25′ E. lon., and is about 900 miles long, and from 120 to 300 broad; square miles, about 220,000; population, uncertain; estimated by Flacourt at 1,600,000; by Rondoux, at 3,000,000; by Rochon, at 4,000,000. It is one of the largest islands in the world, and is remarkable for its fertility. The surface is greatly diversified, being intersected, throughout its whole length, by a chain of lofty mountains, the highest summits of which are said to be about 11,000 feet above the sea. The scenery of these mountains is often grand and picturesque. The forests abound in beautiful trees, as palms, ebony, wood for dyeing, bamboos of enormous size, orange and lemon trees. The botany of the island is interesting; iron mines abound in various parts; other minerals are found; but the mineralogy of the island has been but little explored. The country is well watered by numerous streams, mostly small, which descend from the mountains. In this genial climate, they produce a luxuriant fertility. Rice is the staple food of the inhabitants. Other productions are potatoes, sugar, silk, &c. The sheep produce fine wool. The cocoa-nut, banana, &c., flourish. The inhabitants are composed of two distinct races, the Arabs or descendants of foreign colonists, and the Negroes or original inhabitants of the island. The character of the inhabitants differs much in the different parts of the island, and the accounts of writers are very discordant on this subject. But, in reality, too little is known of the greater part of the island, to afford grounds for any safe opinions. The name and position of this island were first made known to Europeans by Marco Polo, in the thirteenth century, although it had been known to the Arabs for several centuries. It was visited by the Portuguese in the beginning of the sixteenth century. The French made attempts to found colonies there in the middle of the seventeenth century, but abandoned the island after many struggles with the natives. In 1745, they made new attempts, but without much success. In 1814, it was claimed by England as a dependency of Mauritius, which had been ceded to her by France, and some settlements were established. One of the native kings of the interior, who had shown himself eager to procure a knowledge of European arts for his subjects, consented, in 1820, to relinquish the slave-trade, on condition that ten Madegassees should be sent to England, and ten to Mauritius, for education. Those sent to England were placed under the care of the London missionary society, who sent missionaries and mechanics to Madagascar. In 1826, 1700 children were taught in the missionary schools, and parts of the Scripture have since been translated into the native language. This king died in 1828, and we do not know what has been the disposition of the new ruler.—See Rochon, *Voyage à Madagascar;* Flacourt, *Histoire de Madagascar;* Copland, *History of Madagascar* (1822).

Madame, in France; the title of the wife of the king's brother, of the sister of the king's father, or the sister of the king's mother, or of the *Fille de France* (the daughter of the king or of the dauphin, deceased during the life of the sovereign). —*Mesdames de France;* the common title of the daughters of the French kings.—*Mademoiselle;* a title of honor of the daughters of the king's brothers, the daughters of the king's father's brothers, or the daughters of the king's mother's brothers. In 1734, it was ordered that it should be given only to the first princess of the blood.

Madder (*rubia*); a genus of plants that has given its name to an extensive family, including, among others, the genus *galium* or *bedstraw*, which it closely resembles in habit, but differs in the fruit, which consists of two globular corneous berries. Fifteen species are known, of which only one inhabits the U. States, viz. the *R. brownei*, which grows in Georgia, Florida, and the mountains of Jamaica. They are chiefly herbaceous, with rough branching stems, simple leaves arranged in whorls of four or six, and small flowers, which are usually disposed in terminal panicles. *R. tinctorum*, or dyer's madder, is by far the most important of the genus, on account of the fine scarlet color afforded by the roots; and, indeed, this substance is essential to dyers and calico-printers, and their manufactures could not be carried on without it. In consequence, it has become an important article of commerce, and is imported into Britain from Holland to a very great extent. Though cultivated in France for a century and a half, the supply is yet inadequate to the consumption in that country, and it is largely imported from the Levant as well as from Holland. Since the extension of manufactures in the U. States, it has become an object of importance to introduce the culture of madder, and the subject has engaged the attention of several intelligent and public-spirited individuals. The plant grows wild in many parts of the south of Europe. The root is perennial, long, creeping, about as large as a quill, and red both without and within; from it arise several trailing, quadrangular stems, rough, branching, and two or three feet in length; the leaves are oblong-oval, and prickly on the margin and mid-rib; the flowers are yellow and small, and are disposed in a panicle, at the extremity of the branches, and in the axils of the superior leaves; they make their appearance in June and July, and are succeeded by blackish berries. The most approved method of culture is from seed, and where this practice is pursued, certain precautions are requisite. As the madder of hot climates affords more coloring matter, as well as a deeper tint, it is best for those who live in a northern region to import the seed from the south. Again, when the seed is too much dried, it may remain in the ground two or three years before it will germinate. On this account, it should be kept in a bed of moistened earth or sand, whenever there is any delay in sowing it. A light, rich and deep soil is the most suitable, and it should be ploughed to the depth of two feet. The time of sowing is in February, or the beginning of March, for the more northern, and in September or October for the more southern regions. This kind of crop requires but little care and attention: for the first year, it is necessary only to keep it free from the weeds, and to hoe it slightly once during the summer; for the second, it requires hoeing in the spring, in the summer, and again, a little more deeply, in the latter part of the season; the same is requisite for the third year, except that the earth is heaped up about the base of the stems, in order to make it shoot with more vigor, and enlarge the roots. It is usual, before the second time of hoeing, to cut the stems for cattle, who are very fond of it; but this practice should not be repeated during the season, as recommended by some writers, or the roots will suffer. It is only at the end of the third year, that the crop is ready for harvesting; and, if it is suffered to remain in the ground beyond this period, more is lost than gained. The roots, at this time, contain the greatest quantity of coloring matter, and have attained their full size. The best method of obtaining the roots, is the following: A trench is dug along the rows, to the depth of two feet, when, by loosening the earth about the roots, they may be taken up entire. In a good soil, a single plant may yield forty pounds of the fresh roots, which diminish, in drying, six sevenths or seven eighths of their weight. The roots should be immediately washed, freed from all decayed parts, and dried as quick as possible, either by the sun or in a kiln. It is well observed, that madder is a hazardous crop, as, from its yielding a return only after a lapse of three years, it is often impossible to foresee what will be the state of the market at that time. Another mode of cultivation is from the roots, which are divided and set out. Twenty thousand plants may be allotted to an acre. In England, the madder from Holland is most esteemed, and it is cultivated in that country to a very great extent. The process of pulverizing the roots, which is done by pounding or grinding, was, for a long time, kept a secret by the Dutch. In the state of a powder, it is of an orange-brown color, and is liable to become damp, and to be spoiled, if kept in a moist place. Madder is used for dyeing woollen, silk, and also cotton goods, and the color is very lasting, and resists the action of the air and sun. Within a few years, a method has been discovered of rendering the red exceedingly brilliant, and approaching to purple. It also forms a first tint for several other shades of color, and, besides, has, of late, been successfully used by painters, and is found to yield a fine rose color. Madder also possesses the singular property of imparting its red color to the bones of those animals which have used it for food, and also to the milk of cows, if they have eaten of it freely.

Composition of Madder, and its Employment in Dyeing. All the parts of the plant contain a yellow coloring matter, which, by absorption of oxygen, becomes red; the root is, however, most productive in this coloring matter, and is the only part employed in dyeing. It is distinguished into three parts—the bark, the middle portion, and the interior woody fibre. The bark contains the same coloring matter as the wood, but mixed with much brown extractive matter, which degrades the hue. The bark may be separated in the milling, for it is more readily ground, and may thus be removed by the sieve. In the middle part of the root, which contains the finest coloring matter, and that in largest quantity, there may be distinguished, by the microscope, a great many shining red particles, dispersed among the fibres. These constitute the rich dyeing material. The fibres contain a brown substance, similar to what is found in the bark. The roots occur in commerce, dried and in powder. They are also sold fresh; in which state they yield finer colors, dye more, and give up their coloring matter with one third less water. According to experiments made in England, five pounds of fresh roots go as far as four of the dry ones; and it is estimated that eight pounds of fresh roots are reduced to one in drying; hence the great advantage of using the green roots becomes apparent. The roots produced in the south of France, when sold in the fresh state, are called *alizari*. They are reddish-yellow, but, when ground, take a fine red tint. The madders of Germany and Holland are orange-yellow, passing into brown-red, having an acid and saccharine taste, and a strong smell. John found, in 100 parts of madder,

Fatty matter, of a red-brown color, resembling wax, ...	1.0
Red resinous matter, ...	3.0
Red extractive matter, ...	20.0
Oxidized extractive, ...	5.0
Brownish gum, ...	8.0
Ligneous fibre, ...	43.5
Acetate of potash and lime, ...	8.0
Phosphate, muriate and sulphate of potash, about . .	2.0
Silica, ...	1.5
Oxide of iron, ...	0.5
	100.0

According to other analyses, madder contains free tartaric acid. Kuhlmann finds, in the madder of Alsace, red coloring matter, dun coloring matter, ligneous fibre, vegetable acids, mucilage, vegeto-animal matters (azotized), gum (4 per cent.), sugar (16 per cent.), bitter matter, resin, salts; the last consisting of carbonate, sulphate and muriate of potash, carbonate and phosphate of lime, with silica. The recent researches of M. M. Robiguet, Colin and Kuhlmann, seem to prove that the differences in the madder dyes proceed from the relative proportions of two distinct coloring principles in madder, which they have called *alizarine* and *xanthine*. By digesting the powder of madder in water, and acting upon the jelly-like solution thus obtained by boiling alcohol, an extract is afforded, which, at a subliming heat, yields the proper red coloring matter of madder, or alizarine. Or the ground madder may be treated directly with boiling alcohol; and to the alcoholic solution, dilute sulphuric acid is added, which precipitates the alizarine in a copious orange precipitate. Alizarine has a golden-yellow hue, is insoluble in water, soluble in alcohol and ether, is precipitated by acids, but not by alkalies, showing distinctly an analogy to resins. The xanthine was obtained from a fawn-yellow matter, soluble in alcohol and water, by precipitation with oxide of lead, washing the precipitate with alcohol, and extricating the color by sulphuric acid. It has an orange-green tint, and a saccharine taste; alkalies cause it to pass into red, and acids to lemon-yellow. It is inferred by these chemists, that, in those fabrics which exhibit rose tints, the xanthine predominates; while in the violet, it is nearly wanting. From a knowledge of these facts, it becomes easy for a skilful dyer to promote the absorption, by the cloth, of one or other of these coloring principles, or to remove one of them, should both together have been attached to it. Kurrer has published, in the Polytechnic Journal of Dingler for 1827, a process, by a spirituous or vinous fermentation, and an immediate subsequent washing, which gives a perfect result with all the madders of commerce. The madder, penetrated with water, and covered over merely one inch, ferments in from 36 to 48 hours, when the whole is transferred into a tub containing a considerable quantity of cold water. Here the madder precipitates, and must be washed with several cold waters. The ordinary madder-red dye is given in the following way:—the yarn or cloth is put into a very weak alkaline bath, at the boiling temperature; then washed, dried and galled; or, when the calico is to be printed, for this bath may be substituted one of cow-dung, subsequent exposure to the air for a day or two, and immersion in very dilute sulphuric acid. In this way the stuff becomes opened, and takes and retains the color better. After the galling, the goods are dried, and alumed twice; then dried, rinsed, and passed through the madder bath. This is composed of three fourths of a pound of good madder for every pound weight of the goods. The bath is slowly raised to the boiling point in the course of 50 or 60 minutes, more or less, according to the shade of color wished for. When the boiling has continued for a few minutes, the stuff is taken out, washed slightly, and dried a second time in the same manner, and with as much madder. It is then washed and dried, or passed through a hot soap bath, which carries off the fawn-colored particles. Other dyes likewise are added to the madder bath, to obtain other shades of color; for instance, a decoction of fustic, weld, logwood, quercitron, knoppern, the mordants being modified accordingly. Hoelterhoff prescribes for *ordinary madder-red*, the following proportions:—20 pounds of cotton yarn, 14 pounds of Dutch madder, 3 pounds of gallnuts, 5 pounds of alum; to which are added, first, 1½ pound of acetate of lead, and, subsequently, a quarter pound of chalk. When bran is added to the madder bath, the color becomes much lighter, and of a more agreeable tint.—*Adrianople madder-red* is given by many distinct operations. The first consists in cleansing or scouring the goods by alkaline baths, after which they are steeped in oily liquors, brought to a creamy state by a little carbonate of soda solution. Infusion of sheep's dung is often used as an intermediate or secondary steep. The operation of oiling, with much manual labor, and then removing the superfluous or loosely adhering oil with an alkaline bath, is repeated two or three times, taking care to dry hard, after each process. Then follows the galling, aluming, maddering and brightening, for removing the dun-colored principle, by boiling at an elevated temperature, with alkaline liquids and soap. The whole is often concluded with a *rosing* by salt of tin.

Madeira; an island off the western coast of Africa, belonging to Portugal; lon. 17° W.; lat. 32° 30′ N.; square miles 407; population estimated at 100,000. The body of the people are of Portuguese descent, negro slavery not being permitted. The peasants are very poor, rude and ignorant; the hardest labor is performed by females. The religion is Catholic. The island consists of a collection of mountains, the most elevated of which is 5068 feet high. The lower slopes are covered with vines, the loftier summits with forests of pine and chestnut. A great part of the sides of the hills consists of abrupt precipitous rocks, supposed to be of volcanic formation. Most of the rocks along the coast are composed of a white lava. The productions, besides wine, are wheat, rye, sugar, coffee, maize, kidney-beans, arrow-root, pine-apples, &c. The great production is wine, of well known excellence. The quantity annually made is about 20,000 pipes, of which two thirds are exported principally to Great Britain and the British colonies. The best vines grow on the south side of the island. There are several varieties of wines; the best is called *London particular.* The tax-gatherer takes the tenth part of the must; the rest is divided between the proprietor and the farmer. Goats abound, and still more hogs, which, being allowed to run wild, acquire a taste of venison; the rabbit also is very common in the mountainous districts. Bees are very common, and the honey they produce is very delicate. Beggary is common among the peasants, and is considered no disgrace. The Portuguese gentry live in a proud and retired manner, associating little with strangers. In the city, the most opulent part of the inhabitants consists of British merchants, established there for the wine trade. The commerce of the island consists almost entirely in the export of its wine. For vessels stopping at Madeira, provisions and refreshments are exorbitantly dear. Adjacent to Madeira is Porto Santo, a small island, and the Desertas, which, with Madeira itself, compose the group of the Madeiras. Funchal, the capital, with 20,000 inhabitants, is in lon. 17° 6′ W.; lat. 32° 37′ N. Porto Santo was discovered by Zarco, a Portuguese navigator, in 1416, unless we may believe the romantic story of Macham, an Englishman of obscure condition, who is said to have eloped with a young lady of noble birth, and set sail for France, but was driven to this region. The lady is said to have died in consequence of her sufferings, and Macham did not long survive. (See the Voyage of Robert Macham in Hakluyt, II.) In 1419, Zarco discovered the island which he called *Madeira*, or the *Wood*, on account of the magnitude and number of the trees that covered it, and which have since almost entirely disappeared. For the history of the recent events in Madeira, see *Portugal.* Barrow, Staunton, and Bowdich's voyages contain information relative to this island. (For information respecting the wines, see Henderson's *History of Wines.*)

Madeira; a river in South America, large, abundant and navigable; about 1100 miles long, rising in the mountains of Chuquisaca, in the republic of Peru. It runs an easterly course to Santa Cruz de la Sierra, with the names of La Plata, Chuquisaca, Cachimayo and Guapay; and, turning to the north, enters the Amazon river, with the name of *La Madeira* (Portuguese for *wood*), on account of the vast quantity of wood which it carries down with its current. It abounds in excellent fish.

Madison, James, bishop of Virginia. (See *Appendix*, end of this volume.)

Madness. (See *Mental Derangement.*)

Madoc; according to a Welsh tradition, a Welsh prince, who, in consequence of some domestic dissensions, went to sea with ten ships and 300 men, in the twelfth century, and discovered land in the ocean far to the west. He made several voyages to and from this unknown land, but finally was lost to the knowledge of his countrymen. The story is to be found in the Welsh Triads, and Hakluyt gives an account of the voyages in his collection. Later travellers have imagined that they had discovered traces of these early emigrants in different parts of the country, and we have had stories of white Indians and Welsh Indians, &c. (See Humboldt's *Personal Narrative*, book ix, note A.)

Madonna (*Italian*); properly, *my lady:* thus Petrarch often calls Laura *madonna;* but now it is more particularly applied to the Virgin Mary, as she is called in other languages, *our lady.* Many celebrated pictures are known under the name of *Madonna*, as the famous *Madonna di Sisto* of Raphael, in the gallery of Dresden.

Madras, Presidency of; part of the English possessions in Hindoostan, comprehending the whole of the country south of the Krishna, excepting a narrow strip on the western coast and the Northern Circars. A considerable portion of it is governed by native princes subordinate to the British, and protected by a subsidiary force; the rest is under the immediate direction of the governor and council of Madras, and, in 1822, was subdivided into 24 districts, with an area of 166,000 square miles, and a population of 13,677,000. The commerce of this presidency is inconsiderable, compared with that of the others, in consequence of the want of a harbor, and of navigable rivers. Madras, the capital of the presidency, is the largest city on the coast of Coromandel. Lat. 13° 5′ N.; lon. 80° 21′ E.; 1044 miles from Calcutta, 770 from Bombay; population, by census, in 1823, 415,751. It consists of fort St. George, the Native or Black town, and the European houses in the environs, surrounded by gardens. The heavy surf which beats on the shore, and the rapid current in this part of the gulf, render the landing often dangerous and always difficult. Boats, formed of three planks sewed together, are used for crossing the surf; but in stormy weather, when no boat can venture through it, the native fishermen pass it on rafts called *catamarans*. The Black town is an irregular assemblage of brick and bamboo houses, crowded together in narrow and dirty streets, inhabited by Hindoos, Mohammedans, Armenians, Portuguese, and other Europeans engaged in the company's service. The houses of the Europeans are generally of but one story, surrounded with verandas; wet mats of cusa grass are placed before the doors and windows, in the rainy season, to perfume and cool the apartments; the heat is then excessive. Besides some literary and charitable institutions, Madras contains the government houses, and is the seat of the supreme court of the presidency.

Madrid; a city and capital of Spain, in New Castile, and in a province of the same name, on the Manzanares, near the centre of the kingdom, about 200 miles from the sea; 650 miles S. S. W. of Paris, 350 W. by S. of Rome; lon. 3° 38′ W.; lat. 40° 25′ N.; population, by a census in 1825, 201,344, including strangers. It is situated in a large plain, on several eminences, and is 2200 feet above the level of the sea, being the most elevated capital in Europe. Seen at a distance, it presents nothing that announces a great city, and, the environs being destitute of wood, and even of vines, while most of the villages are in hollows, the prospect is uncommonly dreary. On drawing near, the prospect is more cheerful. The city is of an oblong form, about six miles in circuit, surrounded by a high earthen wall, but has no ditch, or any other means of defence. The old streets are narrow and crooked, but many others are wide, straight and handsome. They are paved, kept clean, and lighted. The city has 15 gates, 42 squares, mostly small, 506 streets, 77 churches, 75 convents, 8 colleges, and 18 hospitals, 65 public edifices, 17 fountains, and several promenades, among which the Prado is the principal. The private houses are uniform, generally low, with grated windows, and have little striking in their exterior. The churches are less magnificent than in several other cities in Spain. There are two palaces on a large scale—the *Palacio Real* at the western extremity, and the *Buen Retiro* at the eastern. The Palacio Real is of a square form, extending each way 404 feet, 86 feet high; the enclosed court 120 feet square. It is strongly built, the exterior elegantly ornamented, and contains a collection of paintings of the best masters of Flanders, Italy and Spain. The royal library contains about 130,000 volumes, and 2000 manuscripts. The great school of Madrid has 16 masters, who teach the various arts and sciences. There is another seminary, on an equally extensive plan, for the sons of the nobility and gentry. There are academies for the study of the several fine arts, a botanic garden, and a variety of charitable institutions. Madrid is the *Mantua Carpetanorum* of the Romans, and the *Majoritum* of the middle ages. Philip II first made it the capital of the kingdom, on account of its central position. It was occupied by French troops in 1808, and was the residence of Joseph Napoleon until 1812. It was afterwards occupied by the English. In the French expedition into Spain in 1823, it was again entered by the French, under the duke d'Angoulême. (See *Spain*.)

Madrigal; a short lyric poem adapted to express ingenious and pleasing thoughts, commonly on amatory subjects. It contains not less than four, and generally not more than 16, verses; and consists, commonly, of hendecasyllables, with shorter verses interspersed, or of verses of eight syllables irregularly rhymed. In the soft Provençal dialect, it was called *madrial*, because used for subjects of a *material*, that is, of a common and low character. Other derivations are given, as from *mandra*, which signifies, in Greek and Latin, a sheepfold. The earliest madrigals were those of Lemmo of Pistoia, set to music by Casella, who is mentioned by Dante. They were afterwards subjected to stricter rules in regard to the number of verses and the rhyme. In the sixteenth and seventeenth centuries, we find madrigals for the organ and other instruments. The madrigals of Tasso are among the finest specimens of Italian poetry. This form has been successfully cultivated by the Germans.

Madura; a territory celebrated in the Hindoo mythology, now forming a part of the Madras presidency. The capital, of the same name, contains the vast palace of the ancient rajahs, now going to decay, with its lofty dome, 90 feet in diameter, and the Great Temple, one of the most remarkable monuments of Hindoo architecture, with its four gigantic porticoes, each surmounted with a pyramid of ten stories. Mahadeva, under the mystic form of the *lingam*, is the principal object of adoration. Among other remarkable places in this territory is the island of Rameswara (the Lord Rama), separated from the main land by a narrow strait, across which stretches a line of rocks called *Adam's bridge*. Rama, seized with compunction for the slaughter of the Brahmans in his wars, here set up the holy *lingam*.

Mæander, now **Meinder**; a river of Asia Minor, which takes its rise in Phrygia, on mount Celanus: it forms the boundary between Caria and Lydia, and flows into the Ægean sea between Priene and Miletus. It was celebrated among the ancients for its winding course. The name was thence transferred to the intertwined purple borders on mantles and other dresses, as well as upon urns and vases; hence, figuratively, *meandering paths, meandering phrases;* that is, artificial turns and circumlocutions, &c.

Mæcenas, C. Cilnius, the favorite of Augustus, and patron of Virgil and Horace, traced his genealogy from the ancient Etrurian kings. He has been described as a pattern of every political virtue, and a most generous patron of the sciences. He was never, in fact, however, a public minister; for even the office of prefect of Italy and Rome, which he held after the victory at Actium, was only a private trust; and the notions which are entertained of him as the protector of the learned, and which have made his name proverbial, seem to be very much exaggerated. It is true that he collected at his table poets, wits and learned men of every description, if they were pleasant companions, sought their conversation, and sometimes recommended them to Augustus; but it was from political motives, for the purpose of gaining friends for Augustus, and extending his fame. It is true, also, that he gave Horace a farm, and obtained his pardon and freedom, and that he enabled Virgil to recover his property; but, for a man whom Augustus had made exorbitantly rich, the present to Horace was a trifle, and Virgil merely received from him what was justly his own. Mæcenas was not a man of great qualities; but he well understood how to employ the favors of fortune. Without strong passions and a lofty ambition; endowed with a fine taste and a sound judgment; prudent, and cool enough to do whatever he did rightly and thoroughly, and sanguine enough not to shrink before difficulties, and always to anticipate a happy result, but too fond of ease and pleasure to love or to pursue any business, if he was not compelled by necessity; of an agreeable person, gay in conversation, affable and generous; inclined to rally others, and equally willing to receive their attacks in return; artful, and skilful in employing others for his own purposes; careful in the choice of his intimate friends, but faithful and constant after he had once chosen them; and, if necessity required, capable of any sacrifice;—these qualities gained him the confidence of Augustus, which he enjoyed undiminished till his death. Augustus used to banter him on his effeminacy, his love for curiosities, precious stones and gems, his affectation in mixing old Etrurian words with Latin, and making new words. In return, Mæcenas ventured to make use of great freedom, or rather of severity of expression, as, for instance, during the triumvirate, when Octavius was in the tribunal, passing many sentences of death, Mæcenas presented him his tablets with the words, "*Surge tandem, carnifex!*" (Rise, executioner!)—a reprimand which produced its effect; and Octavius did not take offence at it. When Augustus consulted with Agrippa and Mæcenas, whether to retain or resign the supreme power, Mæcenas, in opposition to the advice of Agrippa, urged him to retain it. Thus he proved, that he preferred the profitable to the honorable. Mæcenas appears less worthy of esteem as a private man. He had a palace, in the form of a tower, on the Esquiline hill, which was surrounded with splendid gardens. Here, at the close of the civil wars, being about 40 years old, he resigned himself to indolence, luxury and frivolous pleasures. Of all spectacles, he was most fond of the pantomimic dance, which he himself introduced into Rome. Bathyllus (q. v.), who was famous for his beauty, and his skill in this exhibition, was his favorite. He was no less fond of the pleasures of the palate. His indolence betrayed itself in his dress, in his gait, in his manners, and even in his style. He died in the year of Rome 745. His writings are mentioned by Seneca, Isiodorus and others; but none of them are extant.

Maelstrom, or **Moskoe-Strom**; a whirlpool in the North sea, near the island Moskoe. In summer, it is but little dangerous, but is very much so in winter, especially when the north-west wind restrains the reflux of the tide. At such times, the whirlpool rages violently, so as to be heard several miles, and to engulf small vessels, and even whales, which approach it.

Mænades (from μαινομαι, I am mad); a name applied to the Bacchanalians, the priestesses of Bacchus.

Mæonides. (See *Homer*.) The Muses were likewise sometimes called *Mæonides*, because Homer was viewed as their greatest favorite.

Mæotis. *Palus Mæotis* was the name given by the ancients to what is now called the *Sea of Azoph.* (See *Azoph.*)

Maese. (See *Meuse.*)

Maestricht. (See *Mastricht.*)

Maestro; the Italian for *master*, and not unfrequently used in *maestro di capella*, chapel-master. *Maestro del sacro palazzo* is the papal censor of books and the pope's confessor, a Dominican.

Maffei; a celebrated Veronese family, which has produced many eminent men. 1. *Alessandro* (marquis), born 1662, served under Maximilian Emanuel, in the campaigns against the Turks and the French, distinguished himself in the war of the Spanish succession, and, after the victory of Belgrade (1717), was made field-marshal, and died at Munich, in 1730. The memoirs which appeared under his name (Verona, 1737) were written by his brother, Scipio.—2. *Bernardino*, born at Rome, 1514, educated at Padua, created cardinal at the age of 35, died at the age of 40. He possessed a large collection of coins, of which he made use in his lost History from Medals.—3. *Francesco Scipio* (marquis), born at Verona, 1675, studied in the Jesuits' college at Parma, and went to Rome in 1698, where he devoted himself to poetry, and was received into the Arcadia. He afterwards entered the military career, served under his brother, Alexander, in the Spanish succession war, and, in 1704, was present at the battle of Donauwörth as a volunteer. His literary taste soon recalled him to Italy, where he wrote his *Della Scienza chiamata Cavalleresca*—a work full of learned research into the usages of the ancients in settling private quarrels, and in which he maintains, that duelling is contrary to religion, sound reason and the welfare of society. To improve the condition of Italian literature, the decline of which he lamented, he undertook, in connexion with Apostolo Zeno and Vallisnieri, the publication of a periodical, the object of which was to criticise native works, and make his countrymen acquainted with foreign literature. At the same time, he directed his attention to the Italian drama, which he enriched by his *Teatro Italiano*—a collection of the best comedies and tragedies (3 vols., 1723)—and by his original tragedy of Merope. (See *Italian Theatre*, in the article *Italy.*) This production, although only a judicious essay towards uniting the Greek and French tragedy, met with the most brilliant success. His comedy *La Ceremonia* was also brought upon the stage with applause. To revive the study of the Greek language, which was much neglected by his countrymen, he invited skilful teachers to Verona, whom he supported at his own expense. The discovery of some important manuscripts in the cathedral of his native city, gave his learned labors a new turn, one of the results of which was *Verona Illustrata* (1731). Maffei's reputation had now extended to foreign countries, and, in 1732, he set out on a visit to France, England, Holland, and returned by the way of Vienna, where he was received in the most flattering manner by Charles VI. He died in Verona in 1755, and a monument is there erected to his memory. Among his numerous works, the most important, besides those already mentioned, are *Rime e Prose* (1719); *Istoria diplomatica*; *Museum Veronense*, and other writings relative to his native city. His complete works appeared at Venice (1790, 21 vols., 4to.)—4. *Giovanni Pietro*, one of the most learned writers among the Jesuits, was born at Bergamo, in 1535, went to Rome, where he became acquainted with Annibal Caro and other distinguished men, became afterwards professor of rhetoric at Genoa, then secretary of the republic, and, two years later, entered the order of the Jesuits, in Rome. Having published a Latin translation of Acosta's History of India (1570), he was invited by Henry of Portugal to Lisbon, and employed to write a general history of India; for which purpose he had access to original documents in the archives. This work (*Historiarum Indicarum Libri* xvi) appeared at Florence, in 1588 (better edition, Cologne, 1593), and is characterized rather by beauty of style than by profoundness of research or acuteness of judgment. He died at Tivoli, 1603.—5. *Paolo Alessandro*, born at Volterra, 1653, died in Rome, where he had chiefly resided, in 1716. By an industrious study of museums and cabinets, he acquired an extensive knowledge of ancient works of art. His principal works are *Raccolta di Statue Antiche e Moderne* (Rome, 1704), and an edition of Agostini's *Gemme Antiche*, which he enriched with valuable notes and additions; it is less prized by connoisseurs than the old and scarce edition of 1657, which is remarkable for the beauty of its engravings. —6. *Raphael*, called also *Raphael of Volterra*, born at Volterra, in the middle of the fifteenth century, died there in 1522. His chief work is *Commentarii Rerum Urbanarum Libri* xxxviii (Rome 1506), of which the first 23 books contain geographical and biographical treatises: the remainder is a general view of the state of knowledge at that time.

Mafra; a town of Portugal, province of Estremadura, six leagues north-west of Lisbon, containing a magnificent palace, erected by John V. It is constructed of marble, and is nearly a square of 728 feet. The church is placed in the centre of the fabric, having the palace on one side and the convent on the other. It was begun in 1717, and finished in 1742. A beautiful park and fine gardens are attached to it. The kings of Portugal have often resided here. The palace includes a college, which has a library of 40,000 or 50,000 volumes, and a fine mathematical apparatus. Population, 2,800. (See Murphy's splendid work, published in London, in 1791, the text of which is by Luis de Sousa.)

Magadoxo, Magadosho, or **Makdisho**; a kingdom of Africa, situated on the coast of the Indian sea, extending from the river Jubo, near the equator, to beyond the fifth degree of north latitude. How far it extends to the westward, is not known. It has its name from its capital, situated in a large bay, formed, as has been said, by the mouth of the river of the same name, which is called by the Arabs the *Nile of Magadoxo*, by reason of its annual overflowing. Owen's chart (1827) lays down no river between the Jubo and 8° north, an extent of 500 miles. The city of Magadoxo is a place of great commerce, and vast resort from the kingdoms of Aden, and other parts; whence their merchants bring cotton, silk and other cloths, spices, and a variety of drugs, which they exchange with the inhabitants for gold, ivory, wax, and other commodities. It is chiefly inhabited by Mohammedans. The town is situated in lon. 45° 19′ E.; lat. 2° 1′ N.

Magalhaens, or **Magellan**, Fernando de; a famous Portuguese navigator, who discovered the straits at the extremity of South America, and conducted the first expedition round the world. He served under Albuquerque in the East Indies, and distinguished himself, especially at the taking of Malacca, in 1510. He afterwards entered into the service of Spain, and was intrusted, by Charles V, with the command of a fleet destined to explore a passage to the Molucca islands, by sailing westward. The voyage was commenced September 20, 1519. About the end of October, 1520, he entered the straits since called after his name, and, on the 27th of November, discovered the Pacific ocean. Continuing his course, he arrived at the Ladrone islands, and subsequently at the Philippines, on one of which he lost his life, in a skirmish with the natives, in 1521.

Magazines. (See *Periodicals.*)

Magdalen, or **Mary of Magdala**, a city on the lake of Galilee, in Palestine, by an old erroneous interpretation, is confounded with the sinner mentioned in Luke vii, whose name is not given, and who, on account of her repentance and trust in Christ, was assured by him of the forgiveness of her sins. The history of her conversion from a licentious life being confounded with the story of Mary of Magdala (see *Mary*), the ideal of St. Magdalen was formed, and has given occasion to some of the most celebrated productions of the pencil. Penitent females who had lived licentious lives, early banded together, and formed a religious order, under the protection of St. Magdalena, which existed in Germany before 1215; and similar institutions arose about the same time in France, Italy and Spain. In France, they termed themselves *Madelonettes*. They adopted the rules of St. Augustine, and formed various congregations, distinguished by the color of their dress (white, gray or black), and by the different degrees of strictness in their mode of life. This order, which admitted, at first, only courtesans and females who had lost their honor, has spread into both Indies; and, although the members of it were only bound to social exercises of devotion, and did not apply themselves to useful offices, and have, moreover, departed from their ancient laws, by the reception of virtuous women, yet the institutions continue till the present day. The Catholic Magdalen establishments now remaining in Protestant countries, have been obliged to devote themselves to the care of the sick; such as that at Lauban, in Upper Lusatia.

Magdalen Societies, so called from the view of the character of Mary Magdalen already given, have also been established, of late years, to afford a retreat to penitent prostitutes, and enable them to pursue the work of their own reformation. Such a society was established in London, in 1758, principally by the exertions of doctor Dodd, and, since that period, between 4000 and 5000 abandoned women have enjoyed the benefits of the establishment, and have been restored to their families and society. By far the greater number of those who have been protected here have subsequently continued respectable and correct in their behavior. No female who has conducted herself with propriety in the house, is allowed to leave it unprovided for. Similar societies also exist in some of our principal cities.

Magdalena, a large river of South America, rises from lake Pampas, in the Colombian province Cundinamarca, receives many other rivers, and falls, after a course of 900 miles, by two branches, into the Caribbean sea. It contains numerous alligators. It gives name to a department of Colombia. There is another river of the same name in Texas.

Magdalene Islands; a cluster of islands, seven in number, situated in the gulf of St. Lawrence, about 42 miles northwest from the island of Cape Breton. They are thinly inhabited by fishermen. Lon. 61° 40′ W.; lat. between 47° 13′ and 47° 42′ N.

Magdeburg, one of the most important fortresses of Germany, and, from the time of Charlemagne, of considerable commercial interest, capital of the former duchy, and present Prussian government of the same name, in the province of Saxony, is situated on the left bank of the Elbe, which is crossed by a wooden bridge, about 95 miles from Berlin; lon. 11° 38′ E.; lat. 52° 8′ N.; with 36,600 inhabitants, exclusive of the garrison. Magdeburg, with her 16 bastions, extensive outworks, &c., forms one of the strongest fortresses of Europe, and commands the middle Elbe. The Gothic cathedral is worthy of notice. Magdeburg has two excellent gymnasia, many other establishments, and considerable transit trade between the coasts and the interior of Germany, with some manufactures, &c. In 1743, a canal was constructed uniting the Elbe and Havel, and, therefore, the Elbe and Oder. Magdeburg was the favorite residence of Otho I. The town took an active part in the reformation. It was taken by assault, May 20 (10), 1631, by the Catholic generals Tilly and Pappenheim, and was the scene of great cruelties. In 1806, it was dishonorably surrendered, by general Kleist, to Ney, after the battle of Jena. By the peace of Tilsit, it was ceded to France, which annexed it to the kingdom of Westphalia, and, by the peace of Paris, it was restored to Prussia. Carnot lived here, when in banishment as a regicide, and died here.

Magdeburg, Centuries of. (See *Centuries of Magdeburg*.)

Magellan. (See *Magalhaens.*)

Magellan, Straits of; passage between the Atlantic and Pacific oceans, at the southern extremity of the continent of America; upwards of 300 miles in length, from cape Virgin, in the Atlantic, to cape Desire, in the Pacific ocean, in some places several leagues over, and in others not half a league. The passage through these straits is difficult and dangerous. Lon. 70° to 77° W.; lat. 52° 30′ to 54° S.

Magellanic Clouds; whitish appearances, like clouds, seen in the heavens towards the south pole, and having the same apparent motion as the stars. They are three in number, two of them near each other. The largest lies far from the south pole; but the other two are about 11° distant. They may be multitudes of stars, like the milky way.

Magellona the Beautiful; the name of an old French novel, reproduced in various forms, in many languages, probably composed in the eleventh or twelfth century, by a Provençal minstrel. Magellona is the daughter of the king of Naples; Peter, son of the count of Provence, is her lover. Petrarch is said to have given the present form to the novel. Its title is *L'Histoire du noble et vaillant Chevalier Pierre de Provence et aussi de la belle Maguellone, Fille du Roy de Naples* (1496, 1524, 1625). There are other editions, without year and place. The duke of Marlborough paid, in 1813, for a copy in folio, £22 1*s*. Lope de Vega made use of the subject in his drama the Three Diamonds. (See Millin's *Voyage en France*, vol. iv, p. 354; also Görres's *Deutsche Volksbücher*.)

Maggiore, Lake. (See *Lago Maggiore.*)

Magians (*Magi*) derive their name from *mog* or *mag*, which signifies *priest* in the Pehlvi language. (See *Indian Languages.*) They were the caste of priests with the Persians and Medians. They were in exclusive possession of scientific knowledge. As sacrifices and prayer could be offered to Ormuzd only through them; as Ormuzd revealed his will only to them, and they therefore could pry into futurity; in short, as they were considered mediators between the people and the Deity,—they necessarily possessed great authority, which they abused. Zoroaster was their reformer. He divided them into learners, teachers and perfect teachers. (For the doctrine of Zoroaster, see the article.)

Magic. Men, as soon as they began to observe the phenomena around them, could not help seeing the close connexion which exists between man and external nature. When the sun sets, he wants rest, and sleep approaches with night; atmospheric changes affect his health; certain wounds become painful with the change of weather, or at certain phases of the moon; some men are painfully affected in the presence of particular animals (see *Antipathy*); certain liquids exhilarate, others destroy life. Such and similar observations, combined with many of an erroneous and exaggerated character, springing from credulity and ignorance, soon led men to treat this mysterious connexion of man and nature, and the influence of things or causes without him, upon his mind and body, as a peculiar science, which, when occupations were not yet divided, of course belonged to the priests, whose exclusive possession of knowledge made them the guides of men in science and the arts as well as in religion. This is considered, by some, the natural origin of supernatural magic; others, on the contrary, believe that there once actually existed a deeper knowledge of the powers and influences of nature, transmitted from earlier and purer ages, but lost with increasing folly and guilt; and others believe that men once possessed the means of producing supernatural effects with the assistance of evil spirits, as those particularly gifted by Providence were able to produce supernatural effects with the assistance of God. Maia, the eternal mother of things, is, in the Indian mythology, the goddess of intellectual as well as of sensual love. In another signification, she is the muse, the goddess of prophecy and poetry, and also of deception; and the word *magic* seems to be connected with this root, of so various, yet easily conjoined meanings. Media, Persia, and the neighboring countries, famous for their knowledge of astronomy and astrology, are described as the chief seats of the ancient magi, whose doctrine seems to be, in part, of great antiquity. This doctrine represented opposition or strife as the parent and original cause of all things. After the opposition between light and darkness, Ormuzd and Ahriman, was established, the whole series of finite beings, the whole sensual world, proceeded from this constant struggle of light and darkness, good and evil. The change of day and night, light and darkness, the whole series of ages, time itself, is only a consequence of this struggle, in which sometimes light, sometimes darkness, appears victorious, until finally light shall conquer forever. If all finite things stand under the influence of preserving and destroying powers in nature, it is clear that he who could master these powers could dispose, at his pleasure, of the things subject to them; and the doctrine of the Magians was, that, by prayer and a true knowledge of those laws of opposition, love and hatred, light and darkness, such power could be obtained; and that thus, also, it was possible to pry into futurity. But it was believed that as the world became sinful, the light of the ancient doctrine of the magi was obscured, and those who bore the name became, at last, only evil-disposed sorcerers. One important branch of their art was, now, the excitement of love by potions and enchantments. Their love-potions consisted partly of ingredients, which are still known to physicians as stimulants, partly of parts of animals who had died longing for food or air, or the saliva of hungry dogs, and other still more disgusting substances. Magic, at this period, also occupied itself with fortune-telling, calling up the dead, bewitching by the look (with the Romans and Greeks, *jettatura*)—a superstition which we find existing in the processes against witches in modern times, with the preparation of amulets, the inflicting of pain on a person by correspondent applications to his image in wax, &c. He who wishes to become acquainted with the poetical side of magic, ought to read the Arabian Nights (q. v.). It can hardly be doubted, that the art of the ancient magicians was founded, to a considerable degree, upon a superior knowledge of the powers of nature. The name of the magnet, *magnes*, or *enchanting stone* (according to one derivation,) seems to indicate that it was not unknown to the magi; and some of their phenomena seem referable to galvanism.—Interesting information on this subject is contained in Kleuker's *Zendavesta*, and still more in his *Magikon*, which contains the history of numerous secret doctrines; see also Creuzer's *Symbolik und Mythologie*; Windischmann's *Inquiries respecting Astrology, Alchemy and Magic*, (in German, Frankfort, 1818); also, George Conrad Horst, *On Ancient and Modern Magic, its Nature, Origin and History* (in German), with his *Zauberbibliothek* (6 vols., Mentz, 1820—25). (See *Divination*, *Demon*, *Witchcraft*.)

MAGINDANAO. (See *Mindanao*.)

MAGISTER ARTIUM. (See *Master of Arts*.)

MAGISTER EQUITUM. (See *Master of the Horse*.)

MAGISTER MATHESEOS. (See *Pythagoras*.)

MAGISTRATE; a public civil officer, invested with the executive government or some branch of it. Thus, in monarchical governments, a king is the highest or first magistrate. But the word is more particularly applied to subordinate officers, as governors, intendants, prefects, mayors, justices of the peace, and the like. In Athens, Sparta, and Rome, the chief magistrates were as follows: From Cecrops to Codrus, Athens had 17 kings; from Medon to Alcmæon, 13 archons for life; from Charops to Eryxias, 13 decennial, and from that time, annual archons. The democracy established by Solon was changed into a monarchy by Pisistratus, who was succeeded by his sons Hippias and Hipparchus. The ancient democracy was then restored, but was interrupted for a year, after the unhappy issue of the Peloponnesian war, by the domination of the 30 tyrants, and, for a short time, by that of the decemviri. Under the Macedonian kings, and afterwards under the Romans, except at intervals, the freedom of Athens was only a name. Antipater decreed that 9000 of the principal citizens should administer the government, and Cassander made Demetrius Phalereus prefect of the city. In Sparta, the magistrates were kings, senators, ephori, &c. Chosen by a majority of suffrages, they held their offices, some, as the kings and senators, for life, others for a limited time. Among the Romans, there were different magistrates at different times. The first rulers were elective kings. After the expulsion of Tarquin the Proud (in the year of the city 244, B. C. 510), two consuls were elected annually to administer the government. In cases of pressing danger, a dictator was appointed, with unlimited power, and in case of a failure of all the magistrates, an interrex succeeded. This course continued, with occasional interruptions, till the year of the city 672, or B. C. 81, when Sylla assumed the supreme power, as perpetual dictator. After three years, however, he voluntarily laid aside his authority, and the consular government lasted till Julius Cæsar caused himself to be declared perpetual dictator, B. C. 49. From this time, the consular power was never entirely restored. Soon after the assassination of Cæsar, the triumvirs, Octavius, Lepidus and Antony, assumed a still more absolute sway; and Octavius finally became chief ruler of the Roman empire, under the title of *princeps* or *imperator*. He retained the magistrates of the republic only in name. In the beginning of the republic, the consuls seem to have been the only regular magistrates. But, on account of the constant wars, which required their presence in the army, various other magistrates were appointed, as pretors, censors, tribunes of the people, &c. Under the emperors, still different officers arose. The Roman magistrates were divided into ordinary and extraordinary, higher and lower, curule and not curule, patrician and plebeian, civic and provincial. A distinction between patrician and plebeian magistrates was first made in the year of Rome 260 (B. C. 494); that between civic and provincial, when the Romans extended their conquests beyond the limits of Italy. The ordinary magistrates were divided into higher and lower; to the former belonged the consuls, pretors and censors; to the latter, the tribunes of the people, ediles, questors (q. v.), &c. The most important extraordinary magistrates were the dictator, with his master of horse, and the interrex. The difference between curule and not curule magistrates depended on the right of using the curule chair, which belonged only to the dictator, consuls, pretors, censors and curule ediles. During the republic, magistrates were chosen at the *comitia*, particularly in the *centuriata* and *tributa;* in the former, the higher ordinary authorities were chosen, and in the latter, the lower ordinary authorities. Under the emperors, the mode of the election of magistrates is uncertain.

Magliabecchi, Antonio; a learned critic, who was librarian to the duke of Tuscany, celebrated alike for the variety of his knowledge and the strength of his memory. He was born at Florence, in 1633, and, in the early part of his life, was engaged in the employment of a goldsmith, which he relinquished to devote himself to literary pursuits. He was assisted in his studies by Michael Ermini, librarian to cardinal Leopold de' Medici, and other *literati* residing at Florence. Through unremitting application, he acquired a multifarious stock of erudition, which made him the wonder of his age. Duke Cosmo III made Magliabecchi keeper of the library which he had collected, and gave him free access to the Laurentian library, and the Oriental MSS.; of the latter collection he published a catalogue. His habits were very eccentric. His attention was wholly absorbed by his books; among which he took his rest and his meals, dividing his time between the ducal library and his private collection, interrupted only by the visits of persons of rank or learning, attracted towards him by the report of his extraordinary endowments. He left no literary work deserving of particular notice; but he freely afforded information to those authors who sought his assistance in their own undertakings. Notwithstanding his sedentary mode of life, he was 81 years old when he died, in July, 1714. (See Spence's *Parallel between R. Hill and Magliabecchi.*)

MAGNA CHARTA LIBERTATUM; the Great Charter of Liberties, extorted from king John, in 1215. (See *John.*) The barons who composed the Army of God and the Holy Church, were the whole nobility of England; their followers comprehended all the yeomanry and free peasantry, and the accession of the capital was a pledge of the adherence of the citizens and burgesses. John had been obliged to yield to this general union, and, June 15, both encamped on the plain called Runnymede, on the banks of the Thames, and conferences were opened, which were concluded on the 19th. The preliminaries being agreed on, the barons presented heads of their grievances and means of redress, in the nature of the bills now offered by both houses for the royal assent. The king, according to the custom which then and long after prevailed, directed that the articles should be reduced to the form of a charter, in which state it issued as a royal grant. Copies were immediately sent to every county or diocese, two of which are yet preserved in the Cottonian library in the British museum. To secure the execution of the charter, John was compelled to surrender the city and Tower of London, to be held by the barons till August 15, or until he had completely executed the charter. A more rigorous provision for securing this object is that by which the king consented that the barons should choose 25 of their number, to be guardians of the liberties of the kingdom, with power, in case of any breach of the charter, and the delay or denial of redress, to make war on the king, to seize his castles and lands, and to distress and annoy him in every possible way (saving only the persons of the royal family), till justice was done. Many parts of the charter were pointed against the abuses of the power of the king as lord paramount; the tyrannical exercise of the provisions of the forest laws was checked, and many grievances incident to feudal tenures were mitigated or abolished. But beside these provisions, it contains many for the benefit of the people at large, and a few maxims of just government, applicable to all places and times, of which it is hardly possible to overrate the importance of the first promulgation by the supreme authority. "No scutage or aid shall be raised in our kingdom (except in three given cases) but by the general council of the kingdom." This principle, that the consent of the community is essential to just taxation, has been the life of the British constitution. The 39th article contains the celebrated clause which forbids arbitrary imprisonment and punishment without lawful trial: "Let no freeman (*nullus liber homo*) be imprisoned or disseized, or outlawed, or in any manner injured or proceeded against by us, otherwise than by the legal judgment of his peers, or by the law of the land. We shall sell, delay or deny right or justice to none." This article contains the writ of *habeas corpus* (q. v.) and the trial by jury, the most effectual securities against oppression, which the wisdom of man has devised, and the principle that justice is the debt of every government, which cannot be paid without rendering law cheap, prompt and equal. The 20th section is hardly less remarkable:—"A freeman shall be amerced in proportion to his offence, saving his contenement, a merchant saving his merchandise, and the villain saving his wagonage." The provision which directs that the supreme civil court shall be stationary, instead of following the king's person, is an important safeguard of the regularity, accessibility, independence and dignity of public justice. Blackstone has given an edition of the Charter, with an introduction in his Law Tracts. (See also the histories of Hume and Mackintosh.)

MAGNÆAN INSTITUTE; founded by professor Arnus Magnæus, for the publication of Icelandic manuscripts at Copenhagen.

MAGNA GRÆCIA; the southern part of Italy, which was inhabited by Greek colonists. D'Anville bounds it, on the north, by the river Silar or Selo, which empties into the gulf of Pæstum. But it seems more natural to annex Campania to it, and to take for the boundaries on the one side, the Vulturnus, where the territory of Cuma ceased, and on the other, the Frento or Fortore, which forms the boundary of Apulia, and flows into the Adriatic, as the Grecian colonies reached to that point. The tribes, indeed, which had emigrated into Italy from the north, in the earliest times, spread through all Italy, but always confined by the Apennines, and in the interior of the country. Several centuries after, Greeks came hither, began to build cities on the unoccupied coasts, and intermingled by degrees with the inhabitants of the interior. The foundation of these Grecian colonies was unquestionably after the destruction of Troy. Athenians, Achæans, Eubœans, &c., with some Trojans, repaired hither. According to Dionysius of Halicarnassus, the followers of Æneas were scattered through the different parts of Italy. Some landed in Iapygia, others retired to both sides of the Apennines, and founded colonies. Subsequently the Romans sent colonies to Calabria, and partly in that way, partly by conquest, became (272 B. C.) masters of all the Greek colonies. The Greek was no longer the sole language in Calabria; the Latin was also spoken; and an intermixture of the Grecian and Roman manners and usages took place, which is yet perceptible. Magna Græcia comprised the provinces of Campania, Apulia, Iapygia, Lucania and Bruttii. The most celebrated republics were Tarentum, Sybaris, Crotona, Posidonia, Locris and Rhegium.

Magnates (in low Latin, the *Great*) was formerly in Poland, and is still in Hungary, the name applied to the noble estates, who took part in the administration of the government. In Poland, they were the spiritual and temporal senators, or the counsellors and high nobility. Among the senators were reckoned the archbishop of Gnesen, and formerly the archbishop of Lemberg, the bishops, waywodes, the castellans and royal officers or ministers. In Hungary, the barons of the kingdom are considered as *magnates*. These are—1. the greater; to wit, the Palatine, royal and court judges, the Ban or governor of Croatia, Sclavonia and Dalmatia, the treasurer and the highest officers of the court; 2. the smaller, or counts and barons. To the prelates, inferior nobles and royal free towns, this denomination does not extend.

Magnesia; one of the earths, having a metallic basis called *magnesium*. It exists in nature, under various states of combination, with acids, water, and other earths, and is found in various mineral springs, and the water of the ocean, united with sulphuric and muriatic acids. It may be obtained by pouring into a solution of its sulphate a solution of subcarbonate of soda, washing the precipitate, drying it, and exposing it to a red heat. It is usually procured in commerce by acting on magnesian limestone with the impure muriate of magnesia, or bittern of the sea-salt manufactories. The muriatic acid goes to the lime, forming a soluble salt, and leaves behind the magnesia of both the bittern and the limestone; or the bittern is decomposed by a crude subcarbonate of ammonia, obtained from the distillation of bones in iron cylinders. Muriate of ammonia and subcarbonate of magnesia result. The former is evaporated to dryness, mixed with chalk, and sublimed. Subcarbonate of ammonia is thus recovered, with which a new quantity of bittern may be decomposed. 100 parts of crystallized Epsom salt require, for complete decomposition, 56 of subcarbonate of potash, or 44 dry subcarbonate of soda, and yield 16 of pure magnesia after calcination. Magnesia dissolves very sparingly in water, requiring 5142 times its weight of water at 60°, and 36,000 of boiling water, for solution. The resulting liquid does not change the color of violets; but when pure magnesia is put upon moistened turmeric paper, it causes a brown stain. It possesses the still more essential character of alkalinity in forming neutral salts with acid in an eminent degree. It absorbs both water and carbonic acid, when exposed to the atmosphere. It is infusible, except in the intense heat of the compound blow-pipe. The salts of magnesia are in general very soluble, and crystallizable, and possessed of a bitter taste. The *Carbonate* is prepared for medicinal use, by dissolving equal weights of sulphate of magnesia and carbonate of potash, separately, in twice their weight of water; mixing them together, and diluting with eight parts of warm water; the magnesia attracts the carbonic acid, and the compound, being insoluble, is precipitated, while the sulphate of potash that remains continues in solution. The mixture is made to boil for a few minutes; after cooling a little, it is poured upon a filtre; the clear fluid runs through, and the precipitate of carbonate of magnesia is washed with water till it is tasteless. When the process is conducted on a large scale, the bittern or liquor remaining after the crystallization of sea-salt, which is principally a solution of muriate and sulphate of magnesia, is substituted for the pure sulphate, and this is precipitated by a solution of pearlash or of carbonate of ammonia. Carbonate of magnesia is perfectly white, friable, and nearly tasteless. It is very sparingly soluble in water, requiring at least 2000 times its weight at 60°. When acted on by water impregnated with carbonic acid, it is dissolved; and from this solution, allowed to evaporate spontaneously, the carbonate of magnesia is deposited in small prismatic crystals, which are transparent and efflorescent.—*Nitrate of magnesia* has a taste bitter and acrid. Its crystallization exhibits a mass of needle-like crystals, deliquescent, soluble in half their weight of water at 60°.—*Sulphate of* *magnesia*, generally known by the name of *Epsom salt*, is made directly by neutralizing dilute sulphuric acid with carbonate of magnesia; but in the large way, by the action of dilute sulphuric acid on magnesian limestone, and the native carbonate of magnesia. It is possessed of a saline, bitter and nauseous taste. It crystallizes readily in small quadrangular prisms, which effloresce in a dry air. It is obtained also in larger six-sided prisms, terminated by six-sided pyramids. Its primary form is a right rhombic prism, the angles of which are 90° 30′ and 89° 30′. It is soluble in an equal weight of water at 60°, and in three-fourths of its weight of boiling water. It undergoes the watery fusion when heated. On mixing solutions of sulphate of magnesia and sulphate of potash in atomic proportion, and evaporating, a double salt is formed, which consists of one equivalent of each of the salts, and six equivalents of water. A similar double salt (isomorphous with the preceding) is formed by spontaneous evaporation from the mixed solutions of sulphate of ammonia and sulphate of magnesia.—*Phosphate of magnesia*, formed from the combination of the acid and the earth, crystallizes in prisms, which are efflorescent, soluble in about 15 parts of cold water, and which, by heat, melt into a glass.—A *triple phosphate of magnesia and ammonia* exists, which is formed by adding phosphoric acid with ammonia, in excess, to a magnesian salt. It is insoluble, and is precipitated in a soft white powder of shining lustre. It forms one variety of urinary calculus, and its formation affords one of the best tests for the discovery of magnesia.—*Muriate of magnesia* has such an affinity to water, that it can be obtained in acicular crystals only by exposing its concentrated solution to sudden cold. No chloride of magnesium can be obtained by heating this salt; for the acid is expelled from it undecomposed, by the application of heat.—*Chloride of magnesia* may be formed in the same manner as chloride of lime. It has the same bleaching power, and it has been proposed to apply it to the same purpose. When the chloride of lime is used, a small quantity of lime is left on the cloth: this, in the last operation of washing the cloth with water acidulated with sulphuric acid, is converted into sulphate of lime, which, being insoluble, remains, and affects the colors, when the cloth is dyed. The advantage of employing the chloride of magnesia is, that, if sulphate of magnesia is formed, it is so soluble as to be easily removed by washing. Magnesia is a very useful article of the *materia medica*. It is used as an antacid and cathartic. It is however, nearly inoperative, unless there is acid in the stomach, or unless acid is taken after it. The carbonate and sulphate are the most frequently used of the preparations of magnesia; but the pure earth, sold under the name of *calcined magnesia*, is sometimes preferred; it is liable, however, to form large and dangerous accumulations in the bowels, of several pounds weight, when its use has long been persevered in. The Epsom salt consumed in the U. States is principally manufactured at Baltimore, from the magnesite and magnesian limestone, found in Lancaster county, Pennsylvania. The annual amount manufactured at this place is given at 1,500,000 pounds.

Magnesian Minerals. Of these, the *hydrate* of magnesia, or *native* magnesia, deserves to be mentioned in the first instance. It is a rare substance, having hitherto been met with only at two localities—Swinaness in Unst, one of the Shetland Isles, and Hoboken, in New Jersey; in the latter place, occurring in thin seams, traversing serpentine. It exhibits a lamellar, or broad columnar structure; is but little above talc in hardness, or in the difficulty of its cleavage; sectile; thin laminæ flexible; specific gravity 2.350. Its color is white, inclining to green; lustre pearly; translucent. Before the blowpipe, it loses its transparency and weight, and becomes friable. In acids, it is dissolved without effervescence, and consists of 70 magnesia and 30 water.—The *siliceous hydrate*, or *Deweylite*, is a compact, white, or yellowish-white mineral, found in the serpentine of Middlefield, Massachusetts, and near Baltimore, Maryland. It has a hardness between calc-spar and fluor, and is composed of silica 40, magnesia 40, and water 20. It appears to be identical with the *kerolite* of Breithaupt.—*Carbonate of magnesia*, or *magnesite*, is found crystallized in radiating and parallel fibres, reniform, tuberose and massive; fracture, when massive, flat conchoidal. It also occurs pulverulent; fracture flat conchoidal, sometimes earthy; dull; color yellowish-gray, cream-yellow, yellowish and grayish-white; streak white; opaque; adheres to the tongue. Some of the compact varieties are very tough, giving fire with the steel, though too soft to impress fluor; specific gravity, 2.808. It is infusible before the blow-pipe; dissolves with a slow effervescence in the dilute nitric and sulphuric acids. It consists of magnesia 48.00, carbonic acid 49.00 and water 3.00. It is found in Stiria, Silesia and Spain. A variety of it, possessing an earthy fracture, and containing about four per cent. of silex, is found in the islands of Samos and Negropont, in the Archipelago, and is called, by the Germans, *Meerschaum*, and by the French, *Ecume de Mer.* It is soft when first dug, and, in that state, is made into pipes, but hardens by exposure to the air. The most remarkable deposit of this mineral, however, is found at Hoboken, in New Jersey, where it occurs disseminated, in seams, through a serpentine rock; and is sometimes crystallized, at others pulverulent. *Sulphate of magnesia* is found in crystalline fibres, parallel and divergent, and in the shape of crusts; more rarely, also, it has been found pulverulent. It is easily recognised by its bitter saline taste. Specific gravity, 1.75; color white; lustre vitreous, translucent, or transparent. It dissolves very easily in water, deliquesces before the blow-pipe, but is difficultly fusible, if its water of crystallization has been driven off. It effloresces from several rocks, both in their original repository and in artificial walls, and then it is a product of their decomposition. It forms the principal ingredient of certain mineral waters. It occurs at Freiberg and its vicinity, efflorescing upon gneiss, also at the quicksilver mines of Idria, in Carniola, and various other places in Europe. Its most remarkable depositories, however, are the limestone caves of Kentucky, whose floors are often covered with it, in delicate crystals, to a considerable depth, intermingled with a dry earth, which has come from the decomposition or disintegration of the limestone rock: this earth is leached, in very considerable quantities, by the inhabitants of the country, who obtain from it their supply of Epsom salt. (For a notice of *Borate of magnesia*, see *Boracic Acid.*)

MAGNET. (For an account of the native magnet, see the article *Iron*, division *Magnetic Iron Ores.*) The peculiar power of certain iron ores to attract and hold fast iron, was known, even in ancient times, by Thales. (q. v.) Much later, it was discovered that these iron ores, or magnets, were capable, also, of communicating their power to the iron which they attract. Accordingly, there are both natural and artificial magnets. All the phenomena connected with the magnetic power, and its relations to the other powers of nature, are comprised under the name of *magnetism.* In recent times, it has been found that pure cobalt and nickel have the same magnetic qualities as iron, only in a much weaker degree; but how far the magnetic influence may be imparted to still other bodies, totally free from iron, is, as yet, a matter of doubt. Those minerals which are not metallic are nearly all attracted by the magnet, at least after having been exposed to the action of the fire. Almost every part of animal and vegetable matter, after combustion, is more or less attracted by the magnet. In most of these instances, however, the magnetism is probably due to the combination of iron. Natural magnets, as well as artificial, have two points, in opposite directions, where the iron is attracted most strongly: these points or places are called *magnetic poles.* One mode of discovering them is by putting the magnet in iron filings, which attach themselves to it most at these two points or poles. If a magnet is left with the fewest impediments possible to its motion, by being placed on water, supported by some slight floating substance, or, without support, on mercury, or by suspension from its centre of gravity between the two poles, or by being supported there by a fine point, it will always turn with one pole towards the north, with the other pole towards the south. Strictly speaking, the direction of the poles is, in Europe, at present, north-north-west and south-south-east. In some parts of the earth, the northern point of the magnet deviates from the meridian to the east; in others, to the west; in others, it coincides with the meridian. Its deviation is called the *declination* of the needle. The point of the magnet which has a northerly direction, is called the *north pole;* the other, the *south pole;* the straight line between both is termed the *magnetic axis;* and the prolongation of this line, curving, however, to correspond to the surface of the globe, is called the *magnetic meridian;* the line which cuts the middle of the magnetic meridian at a right angle, and in a horizontal plane, is called the *magnetic equator.* The property of the magnet, to place itself always in the magnetic meridian, is called its *polarity.* This property is most easily observed in the case of a steel needle, artificially rendered magnetic, and so suspended at its centre of gravity, that it has almost perfect freedom for horizontal motion; this is the magnetic needle of the compass. (q. v.) When two magnets are brought near together, the poles of the same name repel each other: the poles of different names attract each other.—The phenomena of the magnetic needle, together with others to be mentioned in the sequel, induce us to consider the earth itself as a great magnet, whose magnetic poles agree with its equatorial poles. In respect to this great magnet, the fact which we have just stated shows that the poles of every particular magnet, properly speaking, are the opposite of what they are called. What we call *north pole*, because attracted by the north pole of the earth, is, for this very reason, the *south pole* of the magnet. Analogous to the signs used in electricity (q. v.), one pole is also marked by + M, and the other by — M. The magnetism of the earth is also called *terrestrial* magnetism. The most remarkable phenomenon of the magnet, in relation to the earth, is the variation of the magnetic meridian in most parts of the globe, upon which depends the declination of the needle. Accurate observation of this phenomenon has ascertained the following facts: There are certain points on the earth where no declination exists. The lines formed by their series, however, do not coincide with the geographical meridians; but, on the contrary, deviate from them very irregularly. According to the most recent observations, there exists a line without declination in the Atlantic ocean, between the old and the new world. It intersects the meridian of Paris, at a southern latitude of about 65°; thence it mounts to the north-west, to about 35° W. longitude from this meridian, or 32° 39′ 37″ from Greenwich, as high as the latitude of the coast of Paraguay; after which, becoming again almost north and south, it skirts the coasts of Brazil, and proceeds to the latitude of Cayenne. Then, turning suddenly to the north-west, it takes the direction of the U. States, and thence proceeds to the northern parts of the American continent, which it traverses in the same direction. The position of this line on the globe is not immutable; at least for a century and a half, it has been tending considerably from the east to the west. It passed London in 1657, and Paris in 1664. Thus, in its present direction, it has traversed in the latitude of these places, nearly 80° of longitude in 150 years. But there is no doubt that this change is not uniform. It is even very unequal in different parallels. In the West Indies, for example, the declination of the needle has hardly varied for 140 years. In general, the slowness of this movement leaves it uncertain whether it is constantly progressive, or whether it must continue in any particular direction. The very accurate observations habitually made in several observatories of England and France, have appeared to indicate, for some years, a commencing retrogradation towards the east; but, even in the years 1790 and 1791, a similar retrogradation had been observed, which did not, however, continue. The very exact measures of the inclinations or dip of the needle, made at different periods, by Gilpins and Cavendish, at London, have proved that this element is also variable, though much less so than the declination. The inclination was, at London, in 1775, 72° 30′; in 1805, 70° 21′. This result has been confirmed in France, by the observations of Humboldt. It has been also proved, and in a still more striking manner, by the successive measures of the inclination made by different navigators, between 1751 and 1792, at the cape of Good Hope, which indicate, during this time, a progressive increase of inclination, amounting to 5°. There is another line without declination, almost opposite to the preceding, which, beginning in the great Southern ocean, and running constantly in a north-western direction, cuts the western point of New Holland, traverses the Indian ocean, enters the continent of Asia at cape Comorin, and thence, passing through Persia and Western Siberia, ascends to Lapland. This line, however, divides near the great archipelago of Asia, and gives rise to another branch, which, running almost directly north and south, passes this archipelago, crosses China, and runs into the eastern part of Siberia. The two branches which intersect this line either experience no change of place, or move with much slowness. The declination of the needle does not appear to have varied sensibly for 140 years at New Holland. Indications of a fourth line without declination, were observed by Cook in the South sea, towards the point of greatest inflexion of the magnetic equator. On the other hand, the points where the greatest declination of the needle has been observed are in high latitudes north and south. The greatest observed by Cook in the southern hemisphere was at 60° 40′ of latitude, and 91° 24′ 37″ W. from Greenwich. In the northern hemisphere, where the magnetic pole has been much more nearly approached, much greater declinations have been observed, amounting, in fact, to nearly 90° W. If the magnetic pole had been crossed, the north pole of the needle would have been turned to the south, and, directly over the pole, its direction would have been vertical, and, of course, it would have had no horizontal direction. It appears, therefore, that the horizontal direction will be very weak, when the dip or inclination is great; so that a very slight extraneous influence, such as the iron on shipboard, may render the compass useless. Besides these variations, others occur daily, and others according to the seasons. From eight o'clock A. M., the declination increases until about three o'clock; then it decreases until eight P. M., and remains unaltered until eight A. M. The amount of these daily deviations is the greatest from April to July, when it is from 13′ to 16′; in the other months, it is from 8′ to 10′. The direction of the needle is said to be affected by approaching earthquakes, or eruptions of volcanoes. If a needle stands in the magnetic meridian, and is displaced by foreign power, it returns, when the power ceases to act, to its former situation by a series of oscillations. The time of an oscillation, in the case of the same needle, has a certain relation to the magnetic power of the earth, and serves as a measure of it, in a similar way as the oscillations of the pendulum serve for the measurement of the degrees of gravity. Alexander von Humboldt found that a needle which, in Paris, made 245 oscillations in 10 minutes, made, in Peru, but 211 in the same time, which would give the proportion of the magnetic power of the earth at Paris to that in Peru nearly as 135 : 100.* On the other hand, according to Gay-Lussac, an elevation of 3532 toises, about 22,600 feet, over the level of the sea (in a balloon), showed no influence upon the magnetic power. The number of the oscillations, and, of course, the intensity of the magnetic power of the earth, always diminishes in approaching the magnetic equator, and increases in approaching the magnetic pole. Another remarkable and evident manifestation of the influence of the magnetism of the earth upon the needle, is the inclination or dip of the latter; i. e. a deviation from the horizontal plane in northern regions, of the north pole of the magnet; in the southern regions, of the south pole of the magnet; and which, in the region of the magnetic equator, is 0, but increases towards the poles. This phenomenon, also, is subject to differences, because the magnetic equator of the earth cuts the terrestrial equator, and winds through it in a serpentine line, in which it reaches twice on each side its maximum of distance from the earth's equator, which is nowhere more than 14° 10′. The inclination, in the northern hemisphere of the earth, is the strongest between 70° and 80° latitude. Under 74° 47′, where Parry (q. v.) remained during the winter, the inclination amounted to 88° 43′ 45″. The cause of all these phenomena is, as yet, unexplained. That there are great magnets in the earth, which move periodically; or (according to professor Steinhäuser) that an interior planet (Minerva) revolves round the centre of the earth once in 440 years, and thus produces the magnetic phenomena on the surface; or that (as Sander supposes) these are to be ascribed to a magnetic planet on the other side of Herschel, completing a revolution only once in 1720 years, may be matter of interesting speculation, but can hardly be looked on as any thing more. If we observe single magnets, we find that their effect of attraction or repulsion only takes place at small distances, and diminishes in a proportion between the square and the cube of the distance. The form of magnets, their size, and other circumstances, cause differences in this respect. Two magnets attract each other most powerfully by the opposite poles. Next in degree is the attraction of the magnet for soft, pure iron; cast-iron, steel and iron ores are not attracted so strongly; solutions of iron in acids, still less; iron completely oxydated, or iron-rust, is not attracted at all; neither is red-hot iron. The power of the magnet is greatly diminished by heating it: a white heat destroys the power entirely. When pounded to powder, magnets also lose their virtue; but if a magnet, in the form of a bar, is cut perpendicularly through its axis, in several pieces, each one of the pieces acquires a south pole and a north pole, but both of less power than those of the entire magnet. Bodies not susceptible of magnetic influence have no effect when interposed between a magnet and iron; but if a sheet of iron is placed between two magnets, so that its two surfaces are turned towards the magnets, the strength of the latter is much weakened. If the sheet, however, is so placed between the magnets, that the two edges are turned towards them, the effect of the magnets, in attracting each other, is increased. Exhaustion of the air from the place occupied by the magnet does not affect its virtue. The strength of a small magnet is greater, in proportion, than that of a large one. Magnets weighing only a few grains will sometimes support more than 60 times their own weight; but magnets weighing over 2 pounds rarely support more than 10 times their weight. If the weight consists merely of iron, the magnet will sustain more than if other weights are attached to the iron: so, also, a magnet will lift a heavier piece of iron, if this lies on iron, than if it lies on wood, or any thing else. It is very remarkable, that the power of a magnet can be augmented, by making continual additions to the weight which it supports; but, if the magnet has no opportunity to exercise its strength on iron, it becomes, by degrees, weaker. It is also favorable to the power of a magnet, to keep it in such a situation that its north pole is uppermost, or turned towards the north in the meridian. But the means for giving a magnet the greatest effect are to *arm* it. The *armature* of a magnet concentrates the power of both poles (which otherwise disperse their power over a large surface) in two points, to both of which a piece of iron is applied at the same time. A natural magnet, for this purpose, is made smooth at its poles, and two broad pieces of soft iron are applied to the magnet, so as to project on one side. The two pieces of iron having become themselves magnetic by their contact with the body, and having thus their contiguous extremities impregnated with opposite magnetic powers, a piece of iron applied so as to touch them both, will be strongly attracted, and thereby the suspending power very considerably increased. The pieces of iron are generally held fast upon the magnet by means of a brass or silver box. A piece of iron called a *lifter*, and furnished with a ring and a hook, or a scale, for carrying a weight, being applied to the magnet, furnishes means of determining its power. Artificial magnets may be armed in the same manner. The effect of arming a magnet is very great: one which would support only one grain in its unaided state, has thus been made to support 760 grains.—Magnetic power may be communicated from a magnet to another body capable of receiving the magnetic power, by mere touching. Every piece of iron attracted by a magnet becomes, to a degree, magnetic, but ceases to be so if it is removed from the sphere of action of the magnet. Iron, however, may be rendered permanently magnetic, either by communicating to it the magnetic virtue of the earth, or by the aid of proper magnets (natural or artificial). The first effect takes place on iron (particularly bars of soft iron), placed for some time in the magnetic line. All that is required is, that the iron does not deviate at too great an angle from the line: hence iron bars, which hang in the magnetic meridian horizontally (as iron balance-beams) grow magnetic; also iron bars which, in regions distant from the magnetic equator, are placed perpendicularly. In the northern hemisphere, the upper end becomes the south pole, the lower end the north pole; in the southern hemisphere, the contrary takes place. The communication of magnetic virtue in this way is promoted by giving to the iron bars a tremulous motion by hammering or boring: under such circumstances, even hard iron may become magnetic. Red-hot iron, growing cold in this position, also becomes magnetic. Tongs and fire-forks, by being often heated, and set to cool again in a posture nearly erect, have gained this magnetic property. The other way of communicating magnetic power, by rubbing iron with a magnet, is the most common and most effectual. Hard iron receives magnetism in this way with more difficulty than soft iron, but retains it longer. Steel, sufficiently hard, may be rendered permanently magnetic, while soft iron can never be made so. Take a steel bar, eight inches long, half an inch wide, and an eighth of an inch thick; put the north pole of a magnet in the middle of the bar, and draw it to one end; return, without touching the bar, to the point where you began, and draw again down to the end. Do this from 10 to 20 times. This part of the bar is now the south pole; the other end, the north pole. The artificial magnet is strengthened, if the other half of it is rubbed in the same way with the south pole of the original magnet. This process is called the *single stroke*. Another way, called the *double stroke*, is to put both the poles of a magnet in the middle of the bar, and to draw the magnet, without changing the direction of the poles, several times from one end of the bar to the other, taking away the magnet finally at the middle of the bar. A third way is that of the *circular stroke*. Four steel bars are placed so as to form a square, upon which the opposite poles of two magnets are drawn round several times. A magnet is in no degree weakened by communicating its power to iron or steel, but no magnet can give more strength than it possesses; yet, if a steel bar is rubbed with several magnets united, it receives more power than belongs to each single magnet. Thus, by the connexion of many magnets, artificial magnets of very great power may be obtained. By these methods, masses of iron-dust and oil may be rendered magnetic. The following way of making strong magnets, by percussion, was invented by captain Scoresby, and published in the Philosophical Transactions for 1822. He observes—"The strong magnetizing effects of percussion on soft steel induced me to apply this property to the formation of magnets. For this purpose, I procured two bars of soft steel, 30 inches long and an inch broad; also six other bars of soft steel, 8 inches long and half an inch broad, and a large bar of soft iron. The large steel and iron bars were not, however, absolutely necessary, as common pokers answer the purpose very well; but I was desirous to accelerate the process by the use of substances capable of aiding the developement of the magnetical properties in steel. The large iron bar was first hammered in a vertical position; it was then laid on the ground, with its acquired south pole towards the south; and, upon this end of it, the large steel bars were rested while they were hammered; they were also hammered upon each other. On the summit of one of the large steel bars, each of the small steel bars, held also vertically, was hammered in succession; and, in a few minutes, they had all acquired considerable lifting powers. Two of the smaller bars, connected by two short pieces of soft iron, in the form of a parallelogram, were now rubbed with the other four bars in the manner of Canton. [This manner is, to take two of the four bars, and place them together so as to make a double bar in thickness, the north pole of one even with the south pole of the other, the remaining two being put to these, one on each side, so as to have two north and two south poles together. Separate the north pole from the south pole at one end by a large pin, and place the bars perpendicularly, with that end downwards, on the middle of one of the parallel bars, the two north poles towards the south, and the two south poles towards its north end. slide them backward and forward three or four times the whole length of the bar, and, removing them from the middle of this, place them on the middle of the other bar, as before directed, and go over that in the same manner; then turn both the bars the other side upwards, and repeat the former operation. This being done, the two bars that have been thus treated, are to change places with two of the touching bars which are to be subjected to the same process, and so with the two other touching bars.] These were then changed for two others, and these again for the last two. After treating each pair of bars in this way a number of times, and changing them whenever the manipulations had been continued for about a minute, the whole of the bars were at length found to be magnetized to saturation, each pair readily lifting above eight ounces. In accomplishing this object, I took particular care that no magnetic substance was used in the process. All the bars were freed of magnetism before the experiment, so that none of them, not even the largest, produced a deviation of five degrees on the compass at three inches distance. Any bars which had been strongly magnetized, and had had their magnetism destroyed or neutralized (either by hammering, heating, or by the simultaneous contact of the two poles of another magnet placed transversely), I always found had a much greater facility for receiving polarity in the same direction as before, than the contrary. Hence it generally happened that one blow, with the original north end downwards, produced as much effect as two or three blows did with the original south end downward." The correspondence between magnetism and electricity, in many of their phenomena, which has been long observed, has led philosophers to refer both to a common principle. (See the article *Electro-Magnetism.*) In Schumacher's *Astronomische Nachrichten* (October, 1828), Hansteen announced that he was about to publish a chart, containing several thousand magnetical observations, obtained from the English admiralty, and comprising those collected by Parry, Sabine, Lütke, Wrangel, Franklin, &c., and that he only waited till he had himself visited Siberia to make observations there.

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* This result of the observations of Humboldt and Rossol has been confirmed by subsequent observers. Mr. Hermann, in the years 1829 and 1830, made no fewer than 700 magnetic observations, between the meridians of Berlin and Rio Janeiro. He crossed the magnetic equator during that period several times. The magnetic intensity which he observed in various points corresponds exactly with that observed by M. Humboldt in the same places.

Magnetic Needle is a needle touched with a loadstone, and sustained on a pivot or centre, on which, playing at liberty, it directs itself to certain points in or under the horizon. (See *Magnet*, and *Compass.*)

Magnetism, Animal. This name was given by Mesmer, in the latter part of the eighteenth century, to certain phenomena (not yet explained in an entirely satisfactory manner) produced by the action of one man upon another. The origin of the term was a fancied analogy between the action of the mineral magnet and that of the animal energy, or *vis vitæ*, to which these effects were attributed. Experience has shown the análogy to be unfounded. The principal means used to produce the effects of animal magnetism, are such as touching and stroking with the hands, according to rule (*manipulation*), breathing on a person, fixing the eyes upon him, &c.; the magnetized person must always be of a weaker constitution, and, if possible, of a different sex, from the magnetizer; and it is indispensable that he should be of a disposition to believe without doubting. The phenomena themselves consist partly in bodily sensations (for instance, chilliness, heaviness, flying pains, oppressions, &c.), partly in a diminished activity of the external senses, partly in fainting, convulsions, sleep, with lively dreams (magnetic sleep), in which the magnetized person is transported to higher spheres, observes the internal organization of his own body, prophesies, gives medical prescriptions, receives inspired views of heaven, hell, purgatory, &c.; reads sealed letters laid on his stomach, and, when awakened, is totally unconscious of what he has experienced. At the same time, the soul becomes so elevated and refined, that the magnetized individual has an instinctive perception of the presence of the impure, and falls into fits at the approach of disbelievers in animal magnetism, and of all who investigate it by the rules of ordinary reason. Hence it is necessary to keep skeptics at a distance, when it is desired to witness the highest phenomena. The magnetized person shows a remarkable connexion with, and dependence on, the magnetizer, tasting what he eats, smelling what he holds before his nose, and no one else can bring him back from the magnetic state. In the sequel we shall give a brief exposition of the phenomena, as stated by Kluge, who appears, in his Attempt at an Exhibition of Animal Magnetism (in German), to have given the fullest account of them. A scientific investigation of the influence which we are considering is hardly consistent with the views entertained of it by its adherents, for they maintain that mere reason cannot approach, nor conceive this great mystery; it can be rightly apprehended only by a believer. Since the blow which magnetism received in 1821,* the number of its adherents has been greatly diminished, and its pretensions have been much checked. The whole of its effects seem to be ascribable to a heated imagination, to an excitement, half spiritual, half sensual, and to a morbid sensitiveness. Animal magnetism originated thus: Anthony Mesmer (q. v.), in 1772, attempted cures with the mineral magnet, and excited some sensation in Vienna, but at length declared, that not the magnet, but a mysterious power in his own person caused the effects ascribed to the magnet, and that this power was related not only to the magnetic power, but to the attraction dispersed throughout the universe. But a fraud which he attempted (the pretended restoration of sight to a girl) having been discovered, he proceeded, in 1778, to Paris. The attention which he attracted there, and the final report of a committee of the academy on magnetism, or, as it is also called, *Mesmerism*, we shall speak of under *Mesmer*. The great supporters of animal magnetism have recently been Kieser, in Jena, and Wolfart, in Berlin; the former explains the phenomena by the striking difference between life by day and life by night, both in the case of animals and vegetables; the latter adopts the mystical jargon of Mesmer. (See *Archives of Animal Magnetism*, by Kieser, Nasse, and Nees von Esenbeck, published since 1817, in numbers, and since 1825, under the title *Sphinx, or New Archives of Animal Magnetism*; and Wolfart's *Annals of Animal Magnetism* (*Lebens-Magnetismus*), 10 numbers, 1818 et seq.) In 1820, the Prussian government caused a prize to be offered for the best treatise on this subject, but it was subsequently withdrawn. Among the numerous works which treat of it, are Deleuze's *Histoire critique du Magnétisme Animal* (Paris, 1813); Jos. Ennemoser's *Der Magnetismus in einer Geschichtlichen Entwickelung von allen Zeiten und bei allen Völkern* (Leipsic, 1819), in the spirit of Mesmer and Wolfart; J. C. L. Ziermann's *Geschichtliche Darstellung des Thierischen Magnetismus als Heilmittel's* (Berlin, 1824), less prejudiced; *Del Magnetismo Animale*, by Basevi (Florence, 1826).—We now proceed to an outline of the phenomena of animal magnetism, as described in the work of Mr. Kluge, mentioned above. The phenomena, in the case of the magnetizer and the magnetized, are as follows:—1. *The magnetizer.* He is, generally, capable of producing a positive effect only so far as he possesses a higher degree of energy and vital power than the person magnetized. The man generally effects more than the woman. If the magnetizer is the weaker person, there either takes place no apparent effect, or the effects are inverted, viz. the positive effects are apparent in him, and the negative in the person magnetized. If the magnetizer undertakes the manipulation of a susceptible subject, he always feels a glow, and the sensation of a gentle flow from his palm, and particularly from the points of his fingers. If he covers his hands with silk gloves, or other electric bodies, he has not this latter feeling, and his operation is fruitless; but linen or leather gloves do not prevent the effect. After a successful operation, the magnetizer feels a general unpleasantness, a weakness in the digestive system, and, in general, a loss of power, in proportion to the susceptibility of the magnetized subject, and the duration or frequency of the operation. If the magnetizer, during the operation, is isolated with the magnetized subject by electrical bodies, his loss of power is less, but the effects which he produces are stronger.—2. *Phenomena in the Person magnetized.* The phenomena produced in the subject by a positive operation, are of a double kind; either they have reference to the general state of the body, are then not periodical, but last during the whole cure, and, therefore, may be considered as the general effects of magnetism; or they have reference only to particular activities of the organization. Of the former sort are, 1. a general awakening and strengthening of the vital powers in all parts of the body, without considerable excitement, as well in the systems of the nerves and muscles, the vascular and digestive system, as the organs of secretion; 2. a mild excitement over the whole surface of the body, by which every irregularity and local reaction is neutralized and the equilibrium restored; 3. a withdrawing of the heightened vital power from the suffering organs to others; 4. a diminution or total suppression of the excitement producing the morbid activity of the nerves. The magnetizer not only should have a stronger body than the person magnetized, but also a perfectly healthy one. He must have attained the maturity of his bodily powers, but must still be within the age of active life; the mind, too, must be sound and strong, in order to master the affections and passions, to have a living faith and a firm will, and thus to attain perfect control over this means of cure, as also over the patient. The phenomena of animal magnetism have been divided into six degrees. Those of the first degree are generally the following: first, the feeling of a strong current from the head to the extremities, after which, a higher degree of heat follows, easily observable by the thermometer, greater redness of the skin, with increased perspiration, and a feeling of ease and comfort throughout the whole body. In the second degree, the warmth increases, and appears to the patient to diffuse itself from the stomach, as if from a central point, over the whole body. The pulse becomes generally fuller and stronger, and the breathing easier and deeper. The patient feels a heaviness in the eyelids, and an irresistible desire to close them. If he does close them, they seem to him cemented by the strongest power, and, during the remainder of the magnetic effects, it is impossible for him to open them. All the other senses, however, remain active, and their activity is often heightened. The patient knows, therefore, every thing which is done about him, though he is not always capable of speaking. At the close of the magnetic operation, he opens his eyes by himself, or with the assistance of the magnetizer, and feels generally strengthened and well. After this, the patient observes, sometimes, a shining appearance before his eyes, similar to repeated lightning, a pricking in the points of the fingers and toes alternately, a heaviness and coldness in the extremities, unpleasant feelings about the region of the stomach, sickness, violent shuddering, wish to cough, &c. The particular signs often accompanying the third degree, are, especially, swoons, convulsive tremblings, real convulsions, cataleptic and even apoplectic fits. This state generally begins with all the signs of an approaching drowsiness. Repeated yawning, stretching, heaviness of the eyelids, announce it. A deep sigh generally follows, after which the eyes close entirely, and a state begins similar to sleep, in which the patient seems to be deprived of all sensation and consciousness. In the fourth degree, the patient awakens, not from his sleep, but within himself, and regains his consciousness; he knows himself again, yet in a changed relation to surrounding circumstances. The external senses are either closed entirely, or their character is changed, and the internal sense only remains the same. The *somnambulist* (as he is called in this state), entirely awakened within himself, distinguishes with his eyes nothing but light and darkness, and not always even these, although, as is sometimes the case, the eyelids are open. The ball of the eye is either drawn up convulsively or stiff, the pupil widened and without sensation. Next, the sense of feeling is metamorphosed into that of seeing, so that the somnambulist can distinguish by it, not only the outlines of things, but also colors, with perfect precision. The region of the stomach becomes the central point of all sensation, and it is chiefly through this region that the sense of sight is supplied. The somnambulist, therefore, can ascertain the time perfectly well by a watch, closely held to the pit of the stomach. By repeated exercise, the patient obtains this faculty in a higher degree, and what originally appeared to him indistinct becomes very clear. Persons appear to him more distinct than inanimate subjects. Hearing is likewise performed in this state by the pit of the stomach, and the sense of smell becomes sometimes so acute as to distinguish the different ingredients of compound scents. Objects which the person does not regard in a healthy and natural state, have often very sensible, and even dangerous effects on him when in a state of somnambulism. The vicinity of a living being, whom the patient perceives at a distance of 10 to 15 paces, is generally very disagreeable to him. If persons whom he dislikes touch him, paleness and coldness occur in the parts touched, and convulsions are generally the consequence. Among inanimate subjects, metals have the most unpleasant effect. To the magnet the somnambulist is still more sensitive than towards other metals. Of every thing which has occurred to the patient during this period, what he has perceived, thought, said or done, he has, when awaking, either no recollection or a very faint one; but if he is brought again into this state, he recollects every thing very well. In the fifth degree, the patient attains, by his heightened consciousness and the increased strength of his general feelings, to that internal self-contemplation by which he is able to investigate even the minutest parts of his bodily structure. By virtue of this accurate knowledge of his internal frame, the *clairvoyant*, as he is called in this state, not only determines very distinctly the seat and quality of his disease, but at the same time an instinct developes itself in him, which makes him understand the means necessary for his cure. Besides mentioning the remedies, the *clairvoyant* also indicates the kind of magnetizing necessary, and thus directs his own cure. This deep insight is not limited to the *clairvoyant's* self, but extends to persons brought into magnetic relations with him, whose sensations are always communicated to him. Between the magnetizer and the *clairvoyant* this sympathy is the strongest and most remarkable. Very often the feeling of disease in the magnetizer is not only communicated to the patient, but the disease itself, which, in some cases, has continued after the patient was awakened. Affections of the soul also pass from the magnetizer to the *clairvoyant*. Sometimes this sympathy reaches such a height, that it remains even when the parties are distant from each other. This magnetic sympathy may be still more heightened, and then the *clairvoyant* has a clear insight into the internal physical state of persons in a magnetic connexion with him, just as he has of his own; can determine their disease, its course, and future phenomena, and prescribe the means of cure accordingly. He insists that he perceives the diseased state of others precisely as his own by the stomach. His language becomes more elevated than ordinary, and is marked by fire, spirit, precision. His perception is livelier and stronger, his thinking freer, deeper, his judgment quicker and more penetrating. He not only perceives the present, and the influence of external relations, much more distinctly than before, but penetrates also into the most distant period of past time, by way of memory. There is an obvious inclination of patients for each other, if they are treated by the same magnetizer, and particularly if they are in a state of somnambulism at the same time. The patient who has attained internal clearness by the fifth degree, penetrates, in the sixth degree, the darkness of external things, and attains a higher view of the whole of nature. With uncommon clearness he often distinguishes the secrets of the past, what is distant and unknown in the present, and the events of coming time. If the patient is asked how he knows all this, he generally answers, that it is as if he were told of it by some other person, or that he feels it through the pit of the stomach. He is always fully convinced of the truth of what he thus acquires. In respect to the choice of proper remedies, the *clairvoyant* is less limited than before. In the former degree, it was necessary to put him into connexion with another person, by intermediate bodies; but, in this degree, he can be in this relation with any distant person, if he knows him, or feels a lively interest for him, or even if the magnetizer, or any other person brought into connexion with the *clairvoyant* by actual touch, knows the distant person, and thinks intently of him. The view of the *clairvoyant* extends even into the future condition of others. In this degree, he attains to a higher, fuller life than he had before. The body seems to be intimately amalgamated with the mind, to be blended into the most harmonious union with it. The individual is removed from every thing coarse and sensual, and placed in a state of serene and elevated self-contemplation. The feeling of the greatest bodily comfort and purity of soul produces a serene peace within him, which expresses itself in the nobler expression of the whole body. In this state, which, according to the *clairvoyants*, borders on heavenly felicity, they are incapable of impurity, and even the guilty obtains the feeling of virtue.—Such are the wonders of animal magnetism, of which our readers may believe much or little. The attention which the subject has attracted in Europe is our excuse for the length of this article. The footing which it has gained, and the effects which it has produced, exemplify, strikingly, the power of imagination. It would require too much space to describe all the various manipulations and other operations by which the patient is placed in the magnetic state; for information respecting these, see Kluge's work, already cited.

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* A votary having become *enceinte* by a celebrated practitioner.

Magnificat. The words which Mary pronounced when she visited Elizabeth (contained in chap. i. of Luke, 46—55), begin, in the Vulgate, *Magnificat anima mea dominum* (My soul doth magnify the Lord). Hence the whole of her thanksgiving, on this occasion, has been called the *magnificat*. The present usage of the Roman Catholic church is, to chant or pronounce the *magnificat* every day, at vespers. It has often been set to music, and forms part of the musical cyclus of the Catholic church. The *magnificat* is also often used in Protestant church music, on the European continent.

Magnificence (*highness, eminence*); a title applied to the rectors and chancellors of the German universities, and to the burgomasters of free cities. A prince who takes the office of a rector is styled *magnificentissimus*.

Magnifying Glass. (See *Microscope.*)

Magnisa, or **Manika** (anciently *Magnesia ad Sipylum*); a town of Natolia, near the Sarabat; 20 miles N. E. of Smyrna; lon. 27° 18′ E.; lat. 38° 44′ N. The streets are wide, the mosques painted white, and the houses better than in most other towns in this part of Natolia. It is situated at the foot of the ancient mount Sipylus, whose top is always covered with snow. It is celebrated in history by the victory of the Romans over Antiochus the Great. Under John Ducas, it was made the capital of the Greek empire. The greatest ornament of the ancient town was a temple of Diana, called *Leucophryene*, or the *White-browed.* The environs were formerly celebrated for the production of loadstone, and it is supposed the word *magnet* is derived from it.

Magnitude, Apparent. If straight lines be drawn from the extremities of a visible object to the centre of the pupil of the eye, the angle formed by them is called the *visual angle* or the *apparent magnitude* of the object. This angle varies with the different distances of objects, being larger when they are near, and smaller when they are remote. Hence our idea of the magnitude of any object, depends not only upon its true dimensions, but also upon the angle under which we view it; and objects of very different dimensions will appear of equal magnitudes, if the visual angles under which they are seen are equal. Thus, for instance, the sun and moon, though their diameters are vastly different, each subtend an angle of about a degree. Besides, numerous prejudices and optical illusions, which we can never overcome, modify our ideas of the magnitude of objects. One of the most remarkable examples of such involuntary deception, is that which every one has experienced in looking at the moon: when it has just risen, it appears larger than when it has reached the zenith. In the horizon, we are apt to imagine it at a greater distance from us than in the zenith, because in the former case there are intervening objects with which we can compare it, but in the latter no such objects occur. If the moon is viewed through a telescope, or an open tube, so as to exclude the intervening objects, it will appear of equal magnitude in both cases, and the whole illusion will immediately vanish.

Magnolia. The seven North American magnolias are the pride of our forests, on account of the elegance of their flowers and foliage. Their leaves are alternate, petiolate, and, in one species, evergreen; and their flowers are large, white or yellowish, solitary at the extremities of the branches, and, in some species, very fragrant; the leaves and wood are also more or less aromatic. They are not extensively diffused, and, two species excepted, are chiefly confined to the tract of country about the Alleghanies, especially towards their south-western extremity. They are in great request in the European gardens, as they are adapted to a northern climate. Their wood in general is soft, spongy, and of no great utility. The *M. tripetala*, or *umbrella tree*, so called from the disposition of the leaves, in a radiated manner, towards the extremity of the branches, inhabits the whole extent of the Alleghanies, as far north as the 43d parallel of latitude. The leaves and flowers are very large, the latter having from 9 to 12 white petals, the three exterior ones being reflexed. The *M. acuminata* inhabits the same districts as the preceding. It is a lofty tree, attaining the height of 80 feet, with a proportional diameter. The flowers are inodorous, and have from six to nine petals of a greenish-yellow color. The leaves are pubescent beneath. The wood is soft, fine-grained, and susceptible of a brilliant polish; it is sometimes sawed into boards, and used in the interior of wooden houses. From the shape of the fruit, which is about three inches long, it is usually called *cucumber tree*. The *M. auriculata* is readily known by the two lobes at the base of the leaves. It inhabits the south-western parts of the Alleghany mountains. The *M. cordata* also inhabits the south-western parts of the Alleghanies. The leaves are cordate, pubescent beneath, and the flowers are yellow. It attains the height of 40 or 50 feet. The *M. macrophylla* is remarkable for the size of its leaves and flowers. The former are between two and three feet long, and the latter are upwards of a foot in diameter. The petals are from six to nine in number, and the three exterior ones have a purple spot at the base. It inhabits the south-western parts of the Alleghanies, but seems to be confined to certain limited districts. The *M. glauca*, or beaver-wood, is a beautiful little tree, or rather shrub, with leaves and flowers much smaller than in any of the preceding. It attains the height of 15 or 20 feet; the leaves are smooth, elliptical, obtuse, and glaucous beneath; the flowers are very elegant, and diffuse a delightful fragrance, though rather too powerful if the plant is shut up in an apartment. The leaves and wood have also a strong aromatic taste. It grows in wet situations in the Atlantic states, from near lat. 43° to Florida, and along the borders of the gulf, beyond the mouths of the Mississippi, but is not found in the upper country, nor west of the Alleghany mountains. The *M. grandiflora*, or big laurel, is confined to the lower parts of the Southern States, from North Carolina to Florida and Louisiana. It is a lofty and magnificent tree, with large evergreen leaves, and white flowers, which are conspicuous at a great distance. Magnolias are wanting in Europe, as well as in Western Asia, but towards the south-eastern part of this latter continent, we again meet with them. The Chinese magnolias are now not unfrequent in our gardens. The *M. yulan* grows to the height of 30 or 35 feet, and the large and numerous white flowers, expanding before the developement of the leaves, give it a very ornamental appearance. The *M. purpurea* is a shrub, bearing large flowers, which are purple externally. The *M. fuscata* is also a shrub, with small, dusky, yellowish, and delightfully fragrant flowers. Some magnificent species have lately been discovered on the mountains of the north of India.

MAGOG. (See *Gog*.)

MAGPIE (*corvus pica*, L.). This crafty and well-known bird is found in both continents, though it is much more limited in its range in America, being confined to the northern and western regions. In its habits and manners it much resembles its brethren the crows; like them, it indiscriminately feeds on both animal and vegetable food; it is peculiarly destructive to the eggs and young of the feebler tribes of birds. It is about 18 inches in length, and weighs from eight to nine ounces. It has a black bill, wings and tail; but the latter are variegated with white, green, purple and blue, of different shades. The construction of the nests of these birds shows great art, they having a thorny cover, and the entrance being at the side. The female lays from five to seven pale-greenish eggs, closely spotted with black. When taken young, they readily become domesticated, and learn to repeat many words, and even sentences, as well as to imitate every noise within hearing. This faculty appears to have been known to the ancients, as Plutarch relates an account of the performances of one of these birds belonging to a barber in Rome. Like the other birds of the crow kind, the magpie is a notorious thief, and will not only steal food, but will carry off any articles within its reach, particularly such as are shining, as buttons, spoons, jewelry, &c., which it carefully conceals in its nest. Its general character has been described by Goldsmith in the following terms: "Were its other accomplishments equal to its beauty, few birds could be put in competition. Its black, its white, its green and purple, with the rich and gilded combinations of the glosses on its tail, are as fine as any that adorn the feathered tribe. But it has many of the qualities of a beau, to depreciate these natural perfections: vain, restless, loud and quarrelsome, it is an unwelcome intruder every where, and never misses an opportunity, when it finds one, of doing mischief." (See Wilson's *Am. Ornithol.*, iv, p. 75.)

Magyars; the original name of the Hungarians, and which they still use in preference to any other. They first became known about the year 626. They came from Asia, but there are different opinions as to their original residence. It is most probable that they lived in the region about the Caspian sea, between the river Kama and the Ural mountains. The similarity which has been thought to exist between their language and the Finnish, has led to the conjecture that they were of Finnish origin. After various expeditions in Asia, they entered Europe at the close of the seventh century, and settled in the territory on the Ingul, between the Dnieper and the Don (in the present government of Ekaterinoslav). They remained here more than 200 years, until they were finally forced to retire before the attacks of the Petsheneges. In the last half of the ninth century, they passed over to Dacia, under their leader Arpad, settled in Pannonia in 896, and established a kingdom there. The ancient annalists sometimes call them *Turks*, but commonly *Ugner* (*Hungarians*). The country itself was called, from them, *Hungary*. (q. v.)

Maha (in Sanscrit, *great*, *large*); a prefix to many names, as *Mahanoddy* (great river).

Mahabharata. (See *Indian Literature.*)

Mahe; a town and fortress of Hindoostan, on the coast of Malabar, belonging to the French; 32 miles N. W. of Calicut; lon. 75° 38′ E.; lat. 11° 43′ N.; population, about 6000. It is a neat town, and a station of the East India company's commercial agent, and carries on a trade in pepper, sandal-wood and cinnamon.

Mahmoud, first sultan of the Gaznevide dynasty, was son of the governor of Chorasan, and sovereign of Gazna. He was 16 years old when his father died, in 997. He drove the king of Turkestan from Chorasan, and, in 1001, invaded Hindoostan, and captured Gebal, a powerful prince. In 1002, he reduced Khalif, the revolted governor of Segestan. He repeated his invasion of India, returned, and overcame Ilek Khan, who had invaded Chorasan. He defeated him a second time, though Ilek had been joined by Kader Khan, with 50,000 horse. He now extended his conquests far and wide, and acquired immense treasures. In 1029, he conquered Persian Irak. He died in 1030, after a prosperous reign of 31 years. He is extolled by the Mohammedan writers, for his regard to justice, and his zeal for the propagation of his religion, which he spread in India by the extermination of a vast number of idolaters, and the demolition of their temples.

Mahmoud II; khan and padishah, sultan of the Ottomans, the 29th sovereign of the family of Osman, the 26th grand sultan, and 21st caliph, "the shadow of Allah upon earth;" an absolute prince, who, possessing by nature the disposition of a despot, has been obliged, for a great part of his reign, to contend against rebellions in the provinces, and the insubordination of the janizaries. He is the second son of Abd-ul-Hhamid, who died in 1789. He was born July 20, 1785, and was brought up in the ancient seraglio. (See *Ottoman Empire.*) Mustapha IV, the elder brother of Mahmoud, who ascended the throne in 1807, had already, according to ancient custom, ordered him to be put to death, that he might have no competitor to fear, when Ramir Effendi, paymaster of the army, at the head of 2000 Albanians, rescued the prince. The valiant Baïraktar, pacha of Ruschuk, immediately deposed Mustapha IV, and girded Mahmoud with the sword of Osman, July 28, 1808. Fourteen weeks afterwards, the janizaries, offended by the military reforms made by the grand vizier Baïraktar, took the seraglio by storm. Baïraktar immediately ordered the execution of Mustapha and his mother, and then blew himself up with his enemies. This happened Nov. 16, 1808. (See *Ottoman Empire.*) The battle between the Seymens (infantry on the European system, in favor of whom the sultan Mahmoud had declared himself) and the janizaries was continued 36 hours longer in the seraglio and the capital, amidst pillage and conflagrations. The rebels gained the victory, and, for the preservation of his life, Mahmoud was compelled to send deputies to them, and to submit unconditionally to their demands. After these horrors, Mahmoud was not able to execute any plan of reform in the army, although he still persevered in his intention. At every attempt, the janizaries obtained by force the discharge and execution of the commanders and ministers who undertook to establish order and discipline. Mahmoud thought only of securing himself upon the throne, stained with the blood of his uncle Selim and of his brother Mustapha. He therefore, according to Pouqueville, murdered the son of Mustapha IV, an infant three months old, and ordered four pregnant sultanas to be sewed up in sacks, and thrown into the Bosphorus. Thus he remained the last and only descendant of the family of the prophet. His will was now made known by the severest orders. Without advisers, without resources, and almost without an army, he continued the war with Russia, and against the Servians. At length, when he was totally exhausted, his divan concluded a treaty at Bucharest, with Russia, May 28, 1812. This measure was advised by England, but disappointed the expectations of Napoleon, who, in connexion with Austria and Prussia, had pronounced the integrity of the Porte. (See *Ottoman Empire.*) Having been educated in the seraglio, where the *validé*, or sultana mother, according to ancient custom, never calls her son otherwise than, *My lion, my tiger!* the grand seignior knows no law, but some forms of custom, and has no regard for any constraints but those of necessity. The circumstances of horror, under which he ascended the throne, and the dangers which perpetually surrounded it, hardened his heart and blinded his judgment. As every sultan is directed to learn some art, he chose calligraphy. Vain of his skill, Mahmoud resolved to write with his own hand all the kiat-sheriffs, or orders, in his own name, and to keep a journal of his thoughts. His papers soon accumulated to such a degree upon his sofa, that he looked around for a private keeper of the archives. He found a suitable person for this office in his barber (Berber Baschi), who was doubly worthy of his confidence, because he could neither read nor write. Khalet Effendi, a courtier, who amused and ruled the sultan by his buffoonery, also occupied a high place in his favor. Berber Baschi introduced this Khalet to Mahmoud; he had once been his companion in the coffee-houses of Galata, a clerk of the corporation of butchers in Constantinople. He was afterwards, in 1806, the ambassador of Selim III to the court of Napoleon. These men were the centre of all the intrigues which spread from the seraglio to the provinces. Khalet soon amassed great wealth by means of presents, and his influence became so important, that he completely governed the sultan and the submissive divan. But he was unable to persuade the mufti to admit him among the ulemas. (See *Ottoman Empire*, at the end of the article.) This privileged caste scorned to receive the universal favorite, because he was the son of a man who sold livers, and, moreover, a child of the world, who drank wine. Khalet punished the mufti with banishment. The new mufti, therefore, and Ali, the new grand vizier, were eager to employ every means to conciliate the favor of Berber Baschi and Khalet Effendi. The latter, however, avoided receiving any important office, lest he should be held responsible for the ill success of any measure which he advised. But he divided the spoil with the governors, who plundered the provinces, and who bribed the principal members of the divan; and was careful that no complaint should reach the ears of the sultan. Pouqueville maintains, that the grand-seignior himself shared with his favorite the sums extorted from the rich. Mahmoud exhibited, however, a proud and inflexible disposition towards Christian princes. The speedy execution of justice in the capital, united with the severe and bloody police, over which Mahmoud, who not unfrequently walked about incognito, kept watch, shows that he was not deficient in energy or talents. But the great and the powerful always remained the slaves of his humor, his avarice and his suspicion. No high officer, whether guilty or innocent, was secure of his property or his life; hence the universal disposition for a revolution, and the intriguing policy of the divan, to make the satraps instruments of their mutual destruction, and thus to obtain the treasures of both parties. The reign of Mahmoud has therefore been a continued scene of treasons and rebellions. The Servians (q. v.) succeeded in shaking off the yoke of the pacha of Belgrade; Mohammed Ali Pacha (q. v.), conqueror of the Mameluke beys and of the Wechabites, became almost absolute sovereign of Egypt; by means of bloody insurrections, Rumelia, Widdin, Damascus, Trebisond, St. Jean-d'Acre, Aleppo, Bagdad, Lattakia (anciently Laodicea), and other pachalics, changed their masters; the bold and crafty Ali (q. v.), in Janina, raised himself to the throne of Epirus. To make himself master of the treasures of this pacha, Mahmoud, by the advice of Khalet Effendi, accused him of high treason. This policy involved the Porte in a civil war, which betrayed its weakness, drove the Greeks to despair, and brought on their revolution. A foreign embassy informed the Porte of the plans of the Greeks,* and Khalet Effendi resolved to extirpate them. In the name of Mahmoud, he gave the following commission to the seraskier Ismaël and Khurschid Pacha—"Every Christian capable of bearing arms must die; the boys shall be circumcised and educated in the military discipline of Europe; not to offend the ulemas, they shall be styled *janizaries*."* All the decrees which roused the fanaticism of the Mussulmans in the capital and in the provinces, the equipment of the faithful for war, favorable prophecies in the name of the prophet, the proscriptions and executions of the rich, the profanation of Christian churches, &c.,—all these, Pouqueville says, proceeded from the seraglio, and were the work of Khalet. Cruelty and avarice led the sultan and his favorite to these measures of terror, while, by letters extorted from the patriarch, and promises of amnesty, made only to be violated, they strove to persuade the Greeks to lay down their arms. The grand seignior himself was present when the innocent prince Constantine Morousi was beheaded. He beheld from a kiosk of the seraglio the bodies of the patriarch Gregory (q. v.) and of the murdered members of the Grecian synod, dragged by Jews, and thrown into the sea; and witnessed the execution of the princes Mavrocordato and Chantzerys, with a multitude of rich merchants and bankers of the Porte. When Mahmoud had, at last, succeeded in destroying his enemies in the capital and in the two principalities where the rebellion originated, while the disaffected governors in the provinces had been subdued by ambitious pachas, and the head of the formidable Ali lay at his feet; when he had happily concluded the war with Persia by the peace of 1823, brought about by the mediation of England, and had no more to fear from the Wechabites,—then it was, after so many perils, that, intoxicated with apparent success, he every day grew more cruel and more intolerable. The children and grand-children of Ali, who had surrendered themselves on the faith of the sultan, were put to death. Inflexible in that design of extermination which he had conceived against the Greeks, he submitted to the powers of Europe in only a few particulars relating to the restoration of the churches and of the advantages of trade, and, after the intercession of the ambassadors of England for three years, he consented to the evacuation of Moldavia and Walachia, June 23, 1824. When the diplomatic corps in Pera protested against the execution of the prelates, he answered—"The sultan is an absolute, independent sovereign, accountable for his actions to no man." His divan, likewise, refused to send a plenipotentiary to the congress of Verona. But Mahmoud trembled whenever the rage of the janizaries, whose severe generals tried in vain to bridle them, wasted the capital with fire and sword; he sacrificed every thing to calm their fury—the most able men in the state and in the army, his nearest relatives, his most tried friends, and even Khalet Effendi, whose services were indispensable to him. In this favorite the janizaries saw the author of the fatal Greek revolution, and of those oppressive exactions which were intended to supply the extravagance of the seraglio. They commenced their attacks upon him by posting up pasquinades on his character; scurrilous songs were sung in the watch-houses respecting Khalet Effendi and Khasnadar Usta, the favorite slave of the sultan, who, it was said, cost him more than it would to support a whole army.* In vain did Khalet endeavor to escape the storm himself, by executing the generals, whom he charged with the misfortunes in Greece, or rich Greeks, whom he accused of being traitors; in vain did he lavish gold, with an unsparing hand, on the rebels: the highest men of the empire themselves prepared his destruction, because he enjoyed alone the confidence of the grand seignior. He and his creatures, the grand vizier, Salik Pacha, and the mufti, were accused of wishing to dissolve the janizaries, and substitute disciplined troops in their stead. A rebellion finally broke out in November, 1822, and the sultan banished the grand vizier, the mufti, Berber Baschi and Khalet Effendi; a vast number of officers were executed or dismissed. Khasnadar Usta, the favorite slave, was committed to the chief of the eunuchs for correction, and shut up in the prison of the harem, with several Odalisks. Khalet retained his property, and retired to Iconium, the place of his exile, with a princely retinue. But his enemies soon succeeded in persuading the sultan to gratify his own avarice, and confiscate the

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* See Pouqueville's *Histoire de la Regenera-*

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tion de la Grèce (History of the Regeneration of Greece), ii. 171.

* After the fall of Ali, Khurschid was ordered by the grand seignior to massacre the whole Greek population of Epirus, showing no compassion even to women and children; to exterminate the Moreots, and to lay waste the whole Morea.—Pouqueville, iii. 385.

* Upon her representation, Mahmoud ordered that the mastic villages of Scio, which supplied the harem with luxuries, should be spared.

wealth of his favorite. This measure was immediately followed by a firman dooming Khalet to death. He was executed December 6, by the aga of the janizaries, though he considered his safety secured by a firman under the hand of the sultan, and his friends and creatures suffered the same fate. Mahmoud complied with every wish of the janizaries, which was made to him by their representatives in the divan. When peace seemed to be again restored, when Scio was destroyed, and the war with Persia brought to a close, he resolved to punish the insolence of this soldiery. The grand vizier Abdullah, a friend of the janizaries, and the aga of the janizaries, both enemies of Khalet, were deposed and put to death. Great preparations for the fourth campaign against the Greeks, in 1824; the prospect of a speedy reconciliation with Russia, which announced to the divan the mission of the marquis de Ribeaupierre, as its minister, to Constantinople; the aid afforded by the viceroy of Egypt against Candia and Morea; the arrival of the French ambassador, general Guilleminot; the friendly connexion of the Porte with Austria and England; the fall of Ipsara, July 3, 1824;—in fine, every thing conspired to fill the sultan with the proudest expectations. But when the severities of his son-in-law and favorite, Hussein, aga pacha of the janizaries, and the measures of the grand vizier Ghalib, renewed the old spirit of sedition; and when news arrived from Thessaly, where the seraskier, Dervish Pacha, was defeated by the Greeks in June, 1824, and from Epirus, where Omer Vrione had effected nothing for the Porte; when the Greek fleet appeared before Ipsara and the Dardanelles, and the expedition of the capudan pacha against Samos failed,—then the rage of the janizaries in Constantinople burst forth with redoubled violence. Their hatred against Mahmoud was vented in the boldest threats, and he was accused of having represented his eldest son, Abd-ul-Hhamid,* who was born March 6, 1813, as subject to epilepsy, and of having, under this pretence, withdrawn him from view, that he might poison him with impunity, if the insurgents should seek to place him upon the Ottoman throne. To avoid massacres and conflagrations, and to save himself, Mahmoud deposed Hussein Pacha and the aga of the arsenal, in August, 1824, banished them from the country, and led the prince with him into the mosque. September 14, he was obliged to appoint the pacha of Silistria, a friend to the janizaries, to succeed Ghalib as grand vizier. As the dangers thickened around him, Mahmoud grew more firm. He was gradually maturing the plan of a total reformation. He commenced with severe measures: August 12, 1825, he went so far as to forbid the Bible of the Christians to be distributed in his empire. Greater activity and important improvements in the arsenal and in the marine, at last, gave the Ottoman fleet a kind of superiority over the Grecian. The new seraskier (Redschid Pacha), and the new capudan pacha (Khosrew) were more fortunate than their predecessors. From the viceroy of Egypt the divan received the most important aid in the Morea; but they delayed from month to month the redress of the complaints of Russia. At length, when the emperor Nicholas resolved to bring the affair to a speedy termination, Mahmoud was forced to accept, May 14, the *ultimatum* of April 5, 1826, which was delivered to him by Minziaky. The Turkish troops now evacuated Moldavia and Walachia. The question between Russia and Turkey was also settled by the treaty of Ackerman, Oct. 6, 1826, and Mahmoud granted to Russia all her demands. The treaty here agreed upon, however, was not carried into effect until May, 1829, after which the Russian minister, M. de Ribeaupierre, had an audience with the grand vizier and the grand sultan, June 7 and 14. Mahmoud was made compliant principally by the dangerous reform which he had commenced in his troops. He had long resolved to dissolve the janizaries, and the burning of the village of Galata by them (Jan. 3—5, 1826), decided him to put his plans into immediate execution. With this object, he issued (May 29, 1826) a hatti-sheriff on the discipline of the janizaries and the reörganization of the army In consequence of this, a general rebellion of the janizaries in Constantinople took place (June 14); but the sultan unrolled the banner of the prophet, and, after a bloody contest, repulsed the insurgents on the 15th. A fetva of the mufti, seconded by a firman of the sultan, now declared the janizaries (q. v.) dissolved. On this occasion, the grand seignior distinguished himself, as well for his courage as for his firmness. For many days and nights, he encamped with his ministers and generals on the Atmeidan. He used every effort for the formation of an army on the European system, and succeeded in one of the most perilous reforms ever undertaken.—(For further information, see *Janizaries;* for the consequences of his refusal in regard to the Greek question, see *Greece, Revolution of*, near the end; for the late war between Russia and Turkey, declared on the part of Russia, March 14, 1828, in consequence of the breach of the treaty of Ackerman, see *Russia*, and *Turkey.*) The sultan is said to have lately adopted the European dress.

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* This prince died in 1823. The second son, Mahmoud, died in 1822, and there is now living only Abd-ul-Medschid, who was born April 20, 1823, and Abd-ul-Azis, born Feb. 8. 1830.

Mahogany; the wood of the *swietenia mahogoni,* a lofty and beautiful South American tree, allied to the *pride of India*, which is so commonly introduced into the Southern States, and belonging to the same natural family—*meliaceæ.* The leaves are pinnate, composed of four pairs of oval, acuminate, entire leaflets, and destitute of a terminal one. The flowers are small, white, and are disposed in loose panicles. The fruit is a hard, woody, oval capsule, about as large as a turkey's egg. The wood is hard, compact, reddish-brown, and susceptible of a brilliant polish. It is one of the best and most ornamental woods known, forming very elegant articles of furniture. It is brought principally from Honduras and the West Indies, from which places it is exported, in vast quantities, to Great Britain, the continent of Europe, and especially to the U. States, where it is so abundant and cheap as to have brought into disuse many of our native kinds of wood, which otherwise would be highly esteemed in cabinet-making. The tree is of rapid growth, and its trunk often has a diameter of four feet. Mahogany-cutting constitutes a principal occupation of the British settlers in Honduras. Gangs of Negroes, consisting of from 10 to 50 each, are employed in this work: one of their number is styled the *huntsman,* and his duty is to traverse the woods in search of the trees. When these have been discovered, a stage is erected against each, so high that the tree may be cut down at about 12 feet from the ground. After the branches are lopped, the task commences of conveying the logs to the water's side, which is often a work of considerable difficulty. They now float down the current singly, till they are stopped by cables, which are purposely stretched across the river at some distance below. Here the different gangs select their own logs, and form them into separate rafts, preparatory to their final destination. In some instances, the profits of this business have been very great, and a single tree has sometimes been known to have produced between $4000 and $5000. Mahogany now begins to be rare in St. Domingo, Jamaica, and the other West India islands. It is said to have been introduced into England about the year 1724.

Mahomet. (See *Mohammed.*)

Mahon, Port Mahon (*Portus Magonis*); a town on the eastern coast of the island of Minorca, of which it is the capital; lat. 39° 51′ N.; lon. 4° 18′ E. It is the residence of a governor and the principal authorities of the island. It is built chiefly on lofty rocks, and enjoys a pure and healthy air. The houses are generally well constructed, neatly kept, and provided with cisterns. Its harbor is one of the safest and most convenient in the Mediterranean. It is capable of accommodating large fleets, but at the entrance there are some shoals. It is defended by three batteries and eight large pieces of cannon. There are four islets near, one of which contains a spacious naval hospital for 800 patients, founded by the English in 1711; another, the quarantine buildings; a third, one of the finest lazarettos in Europe, for 1500 inmates; a fourth, an arsenal. A natural mole runs along the harbor, and is occupied by shops with naval stores. Mahon was taken by the English in 1708; by the French in 1756; restored to the former in 1763; and taken by the Spaniards, after a memorable siege, in 1782.

Mahrattas; a Hindoo nation in the north-west part of the Deccan. They first became known to Europeans in the beginning of the last century, and have become celebrated within the last 50 years. They originated from the Rajapoots, an old warlike tribe. Being driven by the Mongols from the provinces of Hindostan, where they dwelt, they fled to the mountains extending from Surat to Goa. The various tribes of which the nation consisted, were united into a monarchy, the founder of which, Sevajee, died in 1680. The capital of his kingdom was Sattarah. Inured in their hills to all the hardships of war, accustomed to live on rice and water, and armed with excellent sabres, they formed, like the Cossacks, with their hardy horses, a body of cavalry which was the terror of their neighbors, upon whom they made frequent attacks. When Aurengzebe (q. v.) attacked the Coromandel coast, the inhabitants called in the Mahrattas to their aid, and the formidable conqueror found it prudent to conclude a treaty on terms very advantageous for them. After the death of Aurengzebe, the Mahrattas took advantage of the dissensions which agitated the Mongol states, to extend their own territory. Their territory amounted to about 593,320 square miles, the greatest part of which was uncultivated. The sovereigns of this powerful monarchy, the successors of Sevajee, bore the title of *maha rajah* (grand prince). They abandoned the administration of the government entirely to their ministers, by whom they were held as prisoners. The last of the royal family, Ram Rajah, ascended the throne in 1740, at the age of eight years. His prime minister, the *peishwah* (grand vizier) Bajeerow, took advantage of the minority of the prince, seized the reins of government with the aid of Rajoojee, another minister, and confined Ram Rajah, (who remained a prisoner till his death in 1777,) though he left him a show of dignity. Bajeerow, with the other minister, then proceeded to divide the territories as independent sovereigns, the former assuming the western provinces, and fixing his residence at Poonah. His kingdom was called the empire of the Poonah-Mahrattas. Rajoojee took the eastern provinces, established his court at Nagpour, and founded the empire of the Berar-Mahrattas. Bajeerow died in 1761. The dignity of *peishwah* was hereditary in his family. But a council of government was formed in 1777, consisting of 12 Bramins, which left the *peishwah* nothing but the executive power. This division of the Mahratta states could not be effected without the consent of the principal governors of the separate states; they were gained by additions of power and revenue. Hence many Mahratta princes arose, some of whom were only in appearance dependent upon the sovereigns of the more extensive districts, much as the German princes anciently depended on the emperor.—1. The empire of the Poonah-Mahrattas comprehended the whole coast from Goa to Cambay, and was surrounded by Mysore, Golconda, Berar, and the Mahratta principalities Guzerat, Oojein, and Indore. It contains the most important possessions of the Bombay presidency. Bajeerow defeated the Mussulmans in 1760, and extended his conquests to the banks of the Indus. This brought the Poonah-Mahrattas in contact with the territory under Abdallah, formerly a general of Nadir Shah. The *peishwah* having formed a plan for driving the Mohammedans out of the country, and extending the dominion of the Mahrattas over all India, the whole country was divided (1759—61) into two parties. The Mohammedans adhered to Abdallah, and appeared 150,000 strong in the plains of Carnaul and Paniput; the Mahrattas, together with the Jats, were 200,000 strong. After a long and bloody battle, the latter were defeated, and lost all hopes of the supremacy over India, which had been the object of the war. Bajeerow died soon after. His son Maderow died in 1772, his grandson Narain Row was assassinated in 1773, by his uncle Ragobah. The latter could not, however, obtain quiet possession of the *peishwahship*, for a posthumous child of Narain was acknowledged for his lawful son. Ragobah offered to the English the island of Salsette, on condition that they should support his claims. But the council of Bengal was unwilling to engage in a war with the Mahrattas, and, in 1776, concluded a treaty, by the terms of which Ragobah relinquished his pretensions; the English were to remain in possession of Salsette, and to receive a territory producing a yearly revenue of three lacs of rupees. Ragobah remained at Bombay; the English maintained that the district ceded to them did not yield the sum agreed upon. The friends of Ragobah had defeated the adherents of the young *peishwah* at Poonah, and the government of Bombay, with the consent of the council of Bengal, sent Ragobah, in 1778, with an English army, to Poonah. The English gained many important advantages; but, on account of their war with Hyder Ali, peace was their chief object. It was concluded in 1782. They restored all the conquered countries except Salsette and the neighboring islands. Maderow, the son of Narain Row, who had been assassinated, was born in 1774, and, in 1783, declared *peishwah*, and was, for a time, under the guardianship of one of the other Mahratta princes. Bajeerow, the last *peishwah*, was established by an English force, under the command of marquis Wellesley, now duke of Wellington, and subdued several of the Mahratta tribes, with the assistance of the British armies; but, in 1817, he commenced hostilities against the English. He was, however, so severely handled (November 16) by general Smith, that he abandoned his residence at Poonah, and fled to a mountain fortress. In 1818, he submitted to the British authority, and lived as a private individual, with a yearly pension, under the British inspection. —2. The state of the Berar Mahrattas was not so deeply involved in foreign wars, but suffered more from domestic disturbances. Berar, the chief province, is 200 miles long, and 170 broad. Rajoojee, some years after his expeditions with the *peishwah* against Bengal, wrested the best part of Orissa from Aliverdy, the usurper of Bengal. A shallow stream only separated the Berar Mahrattas from Bengal, and they often made incursions into the frontier provinces of that beautiful region. These devastations were not checked until after Chossim Aly, nabob of Bengal, had ceded (1761) Burdwan and Midnapour to the English. Rajoojee, the first Berar rajah, after a long reign, left four sons. The eldest succeeded his father, but died without children. The two next, Sebagee and Modagee engaged in a war for the succession, in which the former fell, and the latter became rajah. He also assisted the Poonah Mahrattas in the war against the British (in 1817), at first privately, but afterwards openly, and was obliged to submit, and to cede to the English his fortresses. Of the remaining Mahratta princes, the most important were Sindia and Holkar. The former was rajah of Oojein, and had become very powerful. To limit his growing power, war was declared against him by the British, in 1802, and he was defeated by the duke of Wellington (then general Wellesley), Sept. 23, 1803. He was obliged to consent to a disadvantageous peace, which was afterwards often violated. He died in 1827. Holkar, sovereign of Indore, whose revenue was estimated at £4,500,000 sterling, was alternately the friend and enemy of the English. In the war of 1805, he was compelled to submit to disadvantageous terms. In 1817, he again took arms, but was defeated and obliged to submit, and deprived of two thirds of his territories. He died in 1825. The Mahrattas profess the religion of Brama; they are strong and firmly built, and vary in their complexion from black to a light brown; their manner of living is simple; they have few wants; they are educated for war; in battle, they intoxicate themselves with a sort of opium or wild hemp, which they smoke, like tobacco. In the last war, their artillery exhibited as much skill as courage. The subjugation of the Mahratta states was facilitated by the circumstance that the military caste of the rajahs was universally hated, because they treated the other castes as slaves. The property and rights of the latter found protection only under the British dominion. The caste of warriors left the British provinces in consequence, formed banditti (*pindarees*) on the Nerbudda, and sought protection from the small Mahratta princes, who were jealous of the British. Thus arose the last general contest of the Europeans with the ancient and proud caste of warriors, which ended with the total dissolution of their order, and the overthrow of the independence of their princely families, in 1818.—See Duff's *History of the Mahrattas* (3 vols., 1826.)

Maia; the eldest daughter of Atlas and Pleione, the mother of Mercury by an amour with Jupiter, in a grotto of the mountain Cyllene, in Arcadia. She was placed, with her six sisters, among the stars, where they have the common name of *Pleiades*. The Romans also worshipped a *Maia*, who, however, was the mother Earth (Cybele). The Tusculans called their principal deity *Majus*, so that here the two highest deities or principles of nature appear in a male and female form. The month of May is said to have received its name from them. (See *Magic*.)

Maid of Orleans. (See *Jeanne d'Arc*.)

Maiden is the name of an instrument of capital punishment, formerly used at Halifax, in Yorkshire, and in Scotland, which is the prototype of the French guillotine. The maiden is a broad piece of iron, a foot square, sharp on the lower part, and loaded above with lead. At the time of execution, it was pulled up to the top of a frame ten feet high, with a groove on each side, for the maiden to slide in. The prisoner's neck being fastened to a bar underneath, on a sign given the maiden was let loose, and the head instantly severed from the body.

Mail, Coat of; also called *habergeon*. There are two sorts—*chain* and *plate mail*.—*Chain mail* is formed by a number of iron rings, each ring having four others inserted into it, the whole exhibiting a kind of net-work, with circular meshes, every ring separately riveted. This kind of mail answers to that worn on the ancient breast-plates, whence they were denominated *loricæ hammatæ*, from the rings being hooked together. The habergeon, or hauberk, resembled a shirt in make, and was thrown over the upper part of the body above the clothing; a collar was applied round the neck; and there was a hood, or net helmet, to cover the head. Sometimes the crown consisted of plates of iron, instead of rings; and iron plates, in like manner, were sometimes clasped around the breast and back. In addition to these parts, there were trowsers of similar construction, and it is probable, that the feet were defended by a guard of the same description.—*Plate mail* consisted of small *laminæ* or plates, usually of tempered iron, laid over each other like the scales of a fish, and sewed to a strong linen or leather jacket. The plates were in general very numerous, small, and united so as to move freely without impeding the motion of the wearer. The plate mail was much more cumbrous than the chain mail, a complete suit of ring mail, still in existence, weighing 39 pounds, while one of plate weighs between 70 and 80, and, in many cases, much more. (For a more particular account of the body armor, see *Cuirass.*) The hands were defended by gauntlets, sometimes of chain mail, but more frequently of small plates of iron riveted together, so as to yield to every motion of the hand. Some gauntlets enclosed the whole hand as in a box or case: others were divided into fingers, each finger consisting of eight or ten separate pieces, the inside being gloved with buff-leather: some of these reached no higher than the wrist, others to the elbow. The thighs of the cavalry were defended by small strips of iron plate laid horizontally over each other, and riveted together, forming what were called *cuissarts*, or thigh-pieces. Of these, some entirely enclosed the thighs; others only covered the front of them, the inside, next the horse, being unarmed. They were made flexible at the knees by joints, like those in the tail of a lobster. Tassets or shirts, hooked on to the front of the cuirass, were used by the infantry. For the defence of the legs, there were a sort of iron boots, called *greaves*. Plates of iron, covering the front of the leg, were also frequently worn over the stockings of mail. The greaves commonly covered the leg all round; with these they had broad-toed iron shoes, with joints at the ankle. Boots of jack-leather, called *curbouly* (*cuir bouillé*), were also worn by horsemen. The different pieces of armor covering the body were called, collectively, a *coat of mail*. Complete coats of mail continued to be used through the seventeenth, and even in the beginning of the eighteenth century. Armor gradually continued decreasing, both from innovations and from its utility being diminished, and, in 1690, most of the defensive armor throughout Great Britain was returned to the Tower, whence it had been issued.

MAIL, and MAIL COACHES. (See *Posts.*)

MAIMBOURG, Louis, a celebrated French ecclesiastical historian, was born at Nancy in 1620, entered into the society of Jesuits at sixteen years of age, and, when he had finished the usual course of study, became classical teacher for six years. Having written a treatise in defence of the rights of the Gallican church against the pretensions of the see of Rome, he was expelled from the society of Jesus (1682), by order of pope Innocent XI; for which disgrace he was compensated by a pension from Louis XIV. He died in 1686. As a historian, he is partial and inexact. His complete historical works (26 vols., 12mo., 1686) contain Histories of the Crusades; of the League; of the Decline of the Empire after Charlemagne; of the Pontificates of St. Gregory and St. Leo; of the Schism of the Greeks; of the Grand Schism in the East; of Arianism; of the Iconoclasts; of Lutheranism, and of Calvinism.

MAIMON, Moses Ben, or MAIMONIDES, one of the most distinguished Jewish scholars, was born at Cordova, in Spain, in 1139. With the lessons of the Arabian Thophail and Averroës in medicine and philosophy, he united the study of the ancient philosophers, particularly of Aristotle, and thus rendered himself an object of suspicion to his Jewish brethren. To escape their persecutions, he went to Egypt, and became physician to the sultan Saladin, under whose protection he established a celebrated seminary in Alexandria. The intrigues of his enemies soon obliged him to leave that city, and the remainder of his life, which he closed in Cairo or in Palestine, in 1205, was passed in continual wanderings. Among his writings, the most celebrated is his *Moreh Nevochim* (the Teacher of the Perplexed), an attempt to reconcile the doctrines of the Old Testament with reason, or a sort of religious philosophy, which bears strong testimony to his acuteness and clear understanding. It was written originally in Arabic, and translated by some Jews into Hebrew, and by Buxtorf into Latin (1629). Among his other works, his excellent Commentary on the Mischna, in Hebrew and Latin (Amsterdam, 6 vols., fol.); his *Jad Chazakha* (Strong Hand), an abridgment of the Talmud (Venice, 4 vols., fol.); his *Sepher Hammisoth*, or Book of Precepts, Hebrew and Latin (Amsterdam, 1640), an exposition of 613 affirmative and negative precepts of the law,—deserve mention. He was also author of a book on Idolatry, translated by Vossius; one on Christ, translated by Genebrard; several medical and other works, letters and essays. The Jews call him the *doctor*, the *great eagle*, the *glory of the West*, the *light of the East*, and consider him inferior only to Moses. They often designate him, according to their usual custom, by the four letters R. M. B. M. (Rabbi Moses Ben Maimon), whence the name *Rambm.*

Maimon, Solomon, a distinguished Jewish philosopher, born in Lithuania, 1753, was the son of a poor rabbi, who directed his studies to the Talmud. After having lived in extreme poverty, his thirst for knowledge carried him to Germany, where he became known to Mendelssohn, in Berlin, and obtained assistance from him. He pursued his studies, particularly in philosophy, with great zeal, turned his attention for some time to pharmacy, travelled to Hamburg, Amsterdam, Breslau, returned to Berlin, and died in Silesia, in 1800. He wrote Memoirs of his own Life (Berlin, 1792—93, 2 vols.). *Maimoniana*, illustrative of his character, were published by S. J. Wolff (Berlin, 1813). He was the author of Essays on the Transcendental Philosophy (Berlin, 1790); Essay toward a New Logic, with letters to Ænesidemus (Berlin, 1794), in which he attempts to correct and define more accurately Kant's transcendental logic; a work On the Categories of Aristotle (1794); and Critical Inquiries into the Human Mind (Leipsic, 1797). In these writings he developes the doctrines of the critical philosophy with great ingenuity.

Maina; a small village of the Morea, which gives its name to a district situated in a bay of the Mediterranean; lon. 22° 22′ E.; lat. 36° 42′ N. The district is mountainous, the least fertile part of the peninsula comprising the south-east part of ancient Laconia, and at present is included in the provinces of Laconia and Lower Messenia. (See *Mainots.*)

Main de Justice (French, *hand of justice*) is a staff, at the upper end of which a raised hand is fastened. It is one of the French insignia of royalty. Napoleon had it among the imperial insignia.

Main-Mast; the chief or middle mast of a ship. It is divided into four unequal sections, viz. the *main-mast*, properly so called, which first rises from the deck; the *main-top-mast*, immediately rising from the main-mast; the *main-top-gallant-mast*, just above the main-top-mast; and the *main-royal-mast*, which crowns the whole. The form of the main-mast, like that of other masts, is taper. Each division of the mast has its particular sail, to which it gives name, as the *main-sail*, *main-top-sail*, &c.; and its particular yard, as the *main-yard*, *main-top-sail-yard*, *main-top-gallant-sail-yard*, &c.; besides its separate head or top, as the *main-top*, *main-top-mast-head*, &c. The ropes, tackling, &c., of each section are named in a similar manner.

Maine, Mayne, or Main (anciently *Mœnus*); a river of Germany, which rises on the confines of Bohemia. It is formed of two streams, the one called the *Weisser*, or White, the other, *Rother*, or Red; both these join near Cumbach. It receives the Regnitz, the Franconian Saal, the Tauber, the Kinzig and the Nidda, and flows through Bavaria, Baden, Hesse-Cassel, Hesse-Darmstadt, the territory of Frankfort, and the duchy of Nassau, and joins the Rhine near Mentz. It affords a navigation as far as Bamberg. Length, about 300 miles.

Maine; formerly a province of the western part of France, bounded by Normandy on the north, the Orléannais on the east, Anjou and Touraine on the south, and Brittany on the west. It now constitutes the departments of the Sarthe and the Mayenne. It derives its name from the *Cenomanni*, an ancient Gallic people. It was part of the French dominions of Henry II of England, and was conquered by Philip Augustus.

Maine et Loire, a department of France. (See *Department.*)

Maine; one of the U. States, bounded N. W. and N. by Lower Canada, E. by New Brunswick, S. E. and S. by the Atlantic, and W. by New Hampshire; lon. 66° 49′ to 70° 55′ W.; lat. 43° 5′ to 48° 12′ N. Its length, on the northern frontier, is 280 miles, on the eastern, 210; greatest length from north to south, 225, and greatest breadth from east to west, 195; square miles, 32,628: population in 1790, 96,540; in 1800, 151,719; in 1810, 228,705; in 1820, 298,335; in 1830, 399,462. The principal rivers are the Penobscot, Kennebec, Androscoggin, Saco, St. Croix and St. John's. The principal bays are Casco, Penobscot, Frenchman's, Englishman's, Machias and Passamaquoddy. The chief lakes are Moosehead, Umbagog, Sebago, Schoodic, and several others farther in the interior. Maine is rather an elevated country, having generally a diversified surface. A tract commencing on the west side of the district, east of the White mountains in New Hampshire, and holding a north-east direction as far as the heads of the Aroostic, about 160 miles in length, and 60 in its greatest breadth, is mountainous. Katahdin mountain is the most elevated summit in this range. There is also a small mountainous tract in the northern extremity. The remainder of the state may be considered, generally, as a moderately hilly country. The tract of country along the sea-coast from 10 to 20 miles wide, embraces all the varieties of sandy, gravely, clayey and loamy soils, frequently interspersed at short distances; seldom very rich; in many places tolerably fertile, but generally poor. Of this section, Indian corn, rye, barley, grass, &c., are the principal productions. In the tract lying north of this, and extending 50 miles from the sea in the western, 80 in the central, and 90 in the eastern part, the same kinds of soil are found, but they are less frequently diversified, and generally more fertile. The surface rises into large swells of generally good soil, between which, on the margin of the streams, are frequently rich intervals, and in other places sandy or gravely pine plains, or spruce and cedar swamps. Of this section, the principal productions are grass, Indian corn, wheat, barley, rye, flax, &c. The country beyond the limits above specified, is but little settled. It exhibits great diversities in the appearance of its soil, growth of timber, and also in climate. The land on the Kennebec, and between this river and the Penobscot, is accounted the best in the state. It is well adapted to the various purposes of agriculture, and, as a grazing country, it is one of the finest in New England. Though the climate of Maine is subject to great extremes of heat and cold, yet the air, in all parts of the country, is pure and salubrious. The summers, in most parts, are favorable to the growth of all the vegetable productions of the Northern States. In some parts, however, Indian corn, and some other plants of a more tender kind, are frequently injured, and sometimes destroyed, by frosts late in the spring and early in the autumn. The cold of winter is severe, yet the serenity of the sky, and the invigorating influence of the atmosphere, during the same season, make amends, in some degree, for the severity of the weather. Maine enjoys great facilities for commerce. The coast is indented with bays, abounding in excellent harbors. All the settled parts of the country lie near a market, and the produce of the farmer is readily exchanged for money, at a good price. The principal article of export is timber. Vast quantities of boards, shingles, clapboards, masts, spars, &c. are transported to the neighboring states, to the West Indies and to Europe. Much of the fire-wood consumed in Boston, Salem, &c. is brought from Maine. Dried fish and pickled salmon are considerable articles of export. Beef, pork, butter, pot and pearl ashes, and some grain, are also among the exports. Great quantities of lime are annually exported from Thomastown. The value of the imports for 1829, was $742,781; of the exports, $737,832, of which $729,106 was of domestic produce. The tonnage in the beginning of that year was 232,939. Cumberland and Oxford canal extends from Portland to Sebago pond. (See *Inland Navigation.*) The principal literary institutions are Bowdoin college at Brunswick (students in 1830, 112); Waterville college at Waterville; the Bangor theological seminary; the Gardiner lyceum at Gardiner, founded in 1821, for the purpose of affording a useful education to the operative and productive classes; the Wesleyan seminary at Readfield; and 29 academies, with funds of the value of $170,000. Each town is required by law to raise a sum equal to 40 cents for each inhabitant, for the support of free schools. In 1826, there were in the state 2499 school districts, and 137,930 scholars. The sum required to be raised was $119,334, but the actual expenditure was $137,878. Some voyages of discovery were made by the English to that portion of the country since called *Maine*, as early as 1602 and 1603, and it is described under the name of *Mavoosheen.* It was visited by French navigators, as De Monts and Champlain, a few years later, but the first permanent settlements were made in 1630. The government was at first proprietary, but in 1652, the province of Massachusetts bay claimed this territory as included within the limits of their charter. In 1820, it was separated from that state, and received into the Union as an independent state. (See *Massachusetts.*)

Mainland of Shetland. (See *Shetland Isles.*)

Mainots; the inhabitants of the mountainous district of the Morea, called *Maina*, in the ancient Laconia. According to Leake, *Maina* is the Italian corruption for the Greek name *Mani*, and the proper name of the people is *Maniati.* They have been supposed to be the descendants of the ancient Spartans, but probably are composed of fugitives from all parts of Greece, who found safety in this remote corner, protected by the rocks and the sea. Their number is about 60,000, of whom 15,000 are capable of bearing arms. They are Christians of the Greek church, and never submitted to the Turkish yoke. They are hardy, brave, and skilful in the use of arms, and, with the barbarous practice of robbery, unite the virtue of hospitality. Their hatred against the Turks is implacable, and they were among the first to distinguish themselves in the

Greek revolution. Previous to that period, Maina was divided into a number of districts, each under a *capitano*, over whom was a *beg*, or head chief, residing at Kitriai. Public affairs were discussed in assemblies called *synods*, in which every Mainot had a voice. (See *Greece*, and *Maina*.)

MAINTENANCE; an unlawful intermeddling in a suit, by assisting either party with money, or otherwise, to prosecute or defend it. This was prohibited by the Roman as well as by the English law. A man may, however, maintain the suit of his near kinsman, servant, or poor neighbor, with impunity. (See *Barratry*, *Common*.)

MAINTENON, Françoise d'Aubigné, marchioness of, descended of a noble Protestant family, was born in 1635, in the prison of Niort, where her father was confined. In 1639, M. d'Aubigné, having been released, set sail for Martinique with his daughter. After his death, in 1645, his widow returned to France, totally destitute, and the young Frances was taken into the house of her aunt, a Calvinist, whose creed she soon after adopted. Every means was used by her mother to reclaim her, and she finally yielded to harsh treatment, and, after a long resistance, abjured that creed. The death of her mother left her solitary and dependent, and, although she was received into the house of madame de Neuillant, her godmother, she was subjected to all kinds of humiliations, and considered herself happy in becoming the wife of the deformed, infirm and impotent Scarron, who, touched with her situation, offered to pay the sum necessary to enable her to enter a convent, or to marry her. Scarron was not rich, but his family was respectable, and his house was frequented by the most distinguished society of the court and the city. His wife conciliated general esteem and affection by her social qualities, her talents, and her modesty. On his death, in 1660, his widow, who was again left destitute, was on the point of embarking for Portugal as a governess, when madame de Montespan, the mistress of Louis XIV, procured her a pension, and afterwards had her appointed governess to the duke of Maine and the count of Toulouse, her sons by Louis. In this post, she became better known to the king, who was, at first, prejudiced against her, but who learned to esteem her for her good sense, and the care which she bestowed on the education of the duke of Maine. He made her a present of 100,000 livres, with which, in 1679, she purchased the estate of Maintenon, and, becoming fond of her society, gradually passed from intimacy to love. Madame de Montespan herself contributed much to the elevation of De Maintenon, by her capricious and arrogant temper, and, while the latter withdrew the king from his connexion with the former, she supplanted her in his affections. Louis XIV was then at an age when men wish for a wife in whom they may confide their joys and sorrows, and he longed to alleviate the weight of government by the innocent pleasures of domestic life. The yielding temper of madame de Maintenon, who, from youth up, had learned to accommodate herself to the wishes of others, promised him an agreeable companion and a trusty friend. Besides this, she had a leaning towards devotion, and the king had himself manifested a similar inclination, as years came on. Père Lachaise, his father confessor, advised him to sanction his wishes by a secret but formal marriage, which was solemnized in 1685. The archbishop of Paris, Harlay, married them, in presence of the confessor and two witnesses. Louis was then 48, madame de Maintenon 50 years of age. At court, the marriage always appeared doubtful, although a thousand indications betrayed it. Yet the happiness of De Maintenon was not lasting: she herself says, "I was born ambitious: I resisted this inclination. When the wish, which I no longer indulged, was fulfilled, I thought myself happy; but this intoxication lasted only three weeks." After her elevation, she lived in a sort of retirement from the world. Louis XIV visited her several times a day, and transacted business with his ministers in her apartments, while she read or otherwise employed herself. Although, in appearance, she neither knew nor wished to know any thing of state affairs, yet she often had a decisive influence on them. Chamillart was made minister, and Marsin commander of the army in Germany (1703), and Vendôme and Catinat were dismissed, by her influence. The nation accused her of errors, and the excuse of good intentions could not always exculpate her. In all other respects entirely submissive to the will of the king, she was wholly occupied with the means of rendering herself agreeable to him, and this slavery of her age made her more unhappy than the poverty of her youth. "What a martyrdom," said she to lady Bolingbroke, her niece, "to be obliged to amuse a man who is incapable of being amused." The king, who sometimes teased her with his ill-humor, endeavored to atone for this by proofs of esteem, such as he had never shown to any other woman. But these external forms could not console her chagrin. She did nothing for her family, because she feared to attract the notice of the nation: she would receive nothing herself but the estate of Maintenon, and a pension of 48,000 livres. Among her benevolent plans, was the foundation of the school at St. Cyr, for the education of poor girls of good family. Thither she retired, after the death of the king, in 1715, taking part in the instruction and amusements of the pupils, till her own death, in 1719. La Beaumelle published the *Lettres de Madame de Maintenon* (Amsterdam, 1756, 9 vols., 12mo.), but with many arbitrary changes. The edition of 1812 (6 vols., 12mo.) is more complete. La Beaumelle's *Mémoires sur Madame de Maintenon et le Siècle passé* contains many errors and fictions. *La Vie de Madame de Maintenon*, by Caraccioli, contains a full account of the institution at St. Cyr. The *Entretiens de Louis XIV et de Madame de Maintenon sur leur Mariage* (Marseilles, 1701) is a scarce book. In 1826, the *Lettres inédites de Madame de Maintenon et Madame la Princesse des Ursins* (4 vols.), were published at Paris.

Maio, Angelo, formerly a Jesuit, in 1813 was made superintendent of the Ambrosian library at Milan. In 1819, he was made keeper of the library of the Vatican in Rome, afterwards librarian, and, in 1825, supernumerary apostolic prothonotary. He has rendered important services to literature by the discovery of several ancient works in Greek and Latin, in the *Palimpsests* (q. v.), as they are called, or *Codices rescripti*, which he rendered legible by chemical means. In 1814, he gave to the world the fragments of three unpublished orations of Cicero, which he discovered in a Codex; and, in 1815, a number of hitherto unknown orations of Cornelius Fronto, with some letters of the emperors Marcus Aurelius and Lucius Verus, and other fragments of ancient authors. In the same year, he published considerable fragments of eight orations, by Q. Aurel. Symmachus. He also discovered about 60 verses of the *Vitularia* of Plautus, never before printed, and designs illustrative of the comedies of Terence, with an old commentary, the complete oration of Isæus on the inheritance of Cleonymus, and an oration of the philosopher Themistius. In 1816, he discovered some books of the Roman antiquities of Dionysius of Halicarnassus, before unknown, containing that portion of the Roman history which was lost in the xi—xvi books of Livy. In the same library he found fragments of the Mœsogothic translation of the epistles of Paul, and a manuscript account of the campaigns of Alexander, written by an unknown author, in the reign of the emperor Constantius, son of Constantine the Great. He has also published designs, *scholia* and fragments of the text, from an old manuscript of Homer; and, in connexion with Zorab, a member of the Armenian college of Venice—*Eusebii Chronicorum Canonum Lib. II* (Milan, 1818). Since 1819, he has prosecuted his studies of the Palimpsests with success at Rome. His most important discovery in the Vatican is the work of Cicero, *De Republica*. In 1823, he published at Rome some newly discovered fragments of the civil law before the time of Justinian, of the rhetoric of Julius Victor, &c.; and, in 1825, *Scriptorum Veterum nova Collectio e Vatic. Codd. Edita.* In 1828, appeared the two first volumes of a collection of all the unpublished works discovered and deciphered by him,—*Classicor. Auctor. e Vat. Codd. Tomus I et II.* Besides the writings above-mentioned, a treatise of Gregorius Martialis, discovered by Maio, at Naples, in 1826, a fragment of Sallust, and some other unpublished works, are given in this collection.

Maiolika. (See *Faience.*)

Maire, Le, Straits of; a narrow channel or passage from the Atlantic to the Pacific ocean, between Terra del Fuego and Staten Land. The strait, which is bounded west by Terra del Fuego, and east by the west end of Staten Land, is about 15 miles long, and as many broad. It derives its name from Le Maire, a Dutch pilot, who discovered it in 1616.

Maison, Nicholas Joseph, peer of France, marquis, born in 1770, commenced his military career at the beginning of the revolution; and, after having served during several campaigns as an infantry officer, became aid-de-camp to marshal Bernadotte. In the campaign of 1807, he acquired great praise for his conduct in an attack on the Prussians. He was sent into Spain in the following year, drove the enemy, at Pinosa, from a post which was believed to be inaccessible, and subsequently made himself master of one of the suburbs of Madrid. He served in Russia and Germany in 1812 and 1813, took so conspicuous a part in the actions of Polotsk and Toltowa, that he was made general of division on the field of battle, routed the Prussians at the bridge of Willig, was wounded at the battle of Wachaau, and received from Napoleon the cross of the order of union, and the title of count. In 1814, he was intrusted with the defence of the Netherlands and the French frontier on that side; and, though his force was far inferior to that of the invaders, he prevented them from penetrating into France. He gave his assent to the return of the Bourbons, and went to meet the king at Calais. Louis rewarded him with the peerage, the order of St. Louis, and the grand cross of the legion of honor. In March, 1815, he appointed him governor of Paris, and Maison continued faithful to his cause, when Napoleon returned from Elba; as, instead of joining the emperor, he retired to an estate of his wife's in the Hundsruck. He went back to Paris with Louis, and resumed his functions there, which, however, he resigned, on being appointed to the eighth division at Marseilles; and, in 1817, he received the title of marquis. He was again intrusted with the government of Paris, but was subsequently succeeded by the duke of Ragusa. His removal is supposed to have been intended as a punishment for his honorable conduct as a peer, on the trials which took place in August, 1821. In 1828, general Maison was appointed to the French expedition to the Morea, and forced the Egyptians to evacuate the country. After the revolution of July, 1830, he was one of the three commissioners appointed to accompany the deposed king to Cherbourg. He has since been sent ambassador to the court of Vienna.

Maistre, Joseph, count de, Sardinian minister, and member of the royal academy of sciences at Turin, born at Chamberri, 1753, of a French family, was a senator of Piedmont at the time of the French invasion (1792). He left his country in consequence of that event, and afterwards followed his king to Sardinia. In 1804, he was sent ambassador to St. Petersburg, returned to Turin in 1817, and died there in 1821. De Maistre was familiar with the Greek and Latin literature. He was an enemy of liberal principles in religion, politics and philosophy. As a diplomatist, he exerted himself to effect the restoration of all his former possessions to his master, and to obtain the transfer of Genoa. Among his political writings are his *Eloge de Victor Amadée III; Considérations sur la France* (1796, 3 ed., 1814, and also three editions at Paris); *Essai sur le Principe Générateur des Constitutions politiques*, in which he maintains the divine origin of sovereignty; *Soirées de St. Petersbourg; Du Pape;* and *Du Congrès de Rastadt*, the last in conjunction with the abbé de Pradt.—His brother Xavier, born at Chamberri, 1764, major-general in the Russian service, member of the Turin academy of sciences, is favorably known as a writer. The Transactions of the Turin Academy contain several chemical communications from him. He is an excellent landscape painter, and a witty poet. His *Voyage autour de ma Chambre*, distinguished for its gayety and philosophy, has been translated into several languages. *Le Lépreux de la Cité d'Aosta* (translated into English, Philadelphia, 1825) delineates, with much talent and feeling, but in sombre and mystic colors, the suffering of a man cut off from all human society. His *Œuvres* (2d ed., Paris, 1825, 3 vols.) contain also the *Expédition nocturne autour de ma Chambre; Les Prisonniers du Caucase;* and *La jeune Siberienne* (a translation of the two last is called Russian Tales, Phil., 1826).

Maitre; the French for *master;* a word used in many connexions.—*Maitre d'armes* is a degree bestowed in France by the societies of teachers of fencing, on such persons as are deemed capable of instructing in this art.—*Maitre de requêtes* were officers of the parliament of Paris, before the revolution, who reported on petitions, &c. (*requêtes*). Napoleon reëstablished the title, and gave it to certain officers belonging to the council of state.

Maittaire, Michael; a learned critic and bibliographer, born in France, in 1688. His parents having fled to England, to avoid the persecutions in France, he was educated at Westminster school and Christ-church college, Oxford, where he took the degree of M. A., in 1696. The preceding year, he had been made second master of Westminster school, which office he relinquished in 1699, and, from that period, devoted his time to private tuition and the study of literature. His editions of various Greek and Latin authors are esteemed for their accuracy. His most important literary production is his *Annales Typographici ab Artis Inventione* (1719—1741, 5 vols., 4to., augmented by Denis and Panzer). He also wrote a *Historia Stephanorum, Gr. Linguæ Dialecti*, and edited the *Marmora Oxoniensia*.

Maize, or Indian Corn (*zea mays*). The native country of this valuable grain remains still undetermined. It is usually attributed to America, where it was cultivated by the aborigines at the time of the discovery; but no botanist has hitherto found it growing wild in any part of the new continent; and most certainly it does not so exist in any portion of the territory of the U. States. It is also certain that its culture did not attract notice in Europe, Asia, or the north of Africa, till after the voyage of Columbus. It was unknown to the ancient Greek and Roman writers, and is not mentioned by the earlier travellers who visited China, India, and other parts of Asia and Africa, and who were very minute in describing the productions of the countries which they visited. Notwithstanding these considerations, some authors have endeavored to prove that it was originally from India, and thence introduced through Persia to Africa. Others, again, have attributed its origin to the western coast of Africa.—Like the other *cerealia*, it belongs to the natural family *gramineæ*, being neither more nor less than a gigantic grass. It is annual and herbaceous. The root is fibrous; the stems rise to the height of from four to ten feet, and, like other grasses, are furnished with knots at intervals The leaves are alternate, sessile, sheathing at the base, and are slightly pubescent on their superior surface, and ciliate on the margin; they vary in length from one to three feet, by three or four inches in breadth. The male flowers are disposed on several spikes, which, together, form a large panicle at the summit of the stem. The female flowers are very numerous, sessile, and disposed in the axillæ of the superior leaves, upon a common axis, which is surrounded with foliaceous sheaths or husks; the styles are very numerous, six to eight inches long, and hang down like a silken tassel from the extremity of the foliaceous envelope; the seeds or grains are rounded externally, angular and compressed at the sides, and tapering towards the base, and are disposed in several longitudinal series. A great number of varieties are cultivated, differing in the size, hardness, number and color of the grains, the form of the spikes or ears, and, what is a very important circumstance to the human family, in the time required to bring them to maturity. The grains in some varieties are violet or black; in others purple, white, or variegated; and sometimes grains of different colors are found on the same spike; but the usual color is golden yellow. Some varieties require five months from the time of sprouting for the perfect maturity of the grains, while the period of six weeks is sufficient for others. Owing to this circumstance, this plant can be cultivated in a far wider range of climate than any other species of grain, not only throughout the tropical regions of the globe, but in the most northern parts of the U. States; in fine, wherever the heat of summer is intense, though it may be of short duration. It is usually ranked the third grain, in point of utility, next after rice and wheat; but the former of these can only be cultivated in the warmer, and the latter only in the temperate parts of the earth. Maize is now very extensively cultivated, not only in America, but throughout a great part of Asia and Africa, and also in several countries of the south of Europe, as in Spain and Italy. In many of the provinces of France, it forms almost exclusively the sustenance of the inhabitants. In some parts of America, two crops are obtained in a season, but, as it is found to exhaust the soil very soon, it is usually planted upon the same piece of ground only after an interval of five or six years. It succeeds best in a light and slightly humid soil. The usual, though not the best mode of planting, is in little hillocks raised at intervals throughout the field, to each of which is allotted five or six grains. These last, after being dipped in water, will often sprout after a lapse of five or six days; the young plants are liable to be injured by frost. In many countries, after flowering, the tops are cut and used for fodder for cattle, and a portion of the leaves stript also; but this last operation should be delayed till near the time of maturity, which is indicated by the drying of the leaves, and the hardness and color of the grains. The spikes or ears are gathered by hand, and the husks, when perfectly dry, stript off, and, together with the stalks, laid by for winter fodder, while the ears are conveyed to the granary. The green stems and leaves abound in nutritious matter for cattle, and in some countries it is cultivated solely for this purpose, especially after early crops of other vegetables; when planted for this object, it should be sowed very thickly. Corn, when well dried, will keep good for several years, and preserve its capability of germination. It is eaten in various manners in different countries, and forms a wholesome and substantial aliment. Domestic animals of every kind are also extremely fond of it. According to count Rumford, it is, next to wheat, the most nutritious grain. It is considered as too stimulating for the common food of cattle, and is found to be more stimulating than any other kind of bread used by us. Mixed with rye meal, it forms the common brown bread of New England; mixed with water alone, it makes a very palatable species of extemporaneous bread. Ground very coarse and boiled, it forms the "hominy," which is so great a favorite at the south; and the fine meal boiled thick in water, is the "mush" of Pennsylvania and the "hasty-pudding" of the Eastern States. In the form of hulled corn or *samp*, the whole grains furnish a very palatable, although rather indigestible luxury. The stems contain sugar, and attempts have been made in France to extract it, but the modes hitherto devised have proved too expensive. In more southern latitudes, the experiment would, doubtless, be attended with more success; indeed, according to Humboldt, this branch of manufacture is carried on in Mexico. The ashes contain a large proportion of potash. Of the husks, a beautiful kind of writing-paper has been manufactured in Italy; and when soaked in hot water, they make excellent mattresses; a grayish paper may be made from all parts of the plant. From some information which has lately reached this country, it would seem that the native country of Indian corn has, at last, been ascertained. A variety has been obtained in Paraguay, in which each grain is surrounded by glumes, and this, according to the report of the Indians, grows wild in the woods.

Majesty (from the Latin *majestas*) signified, in republican Rome, the highest power and dignity—the attribute of the whole community of citizens, the *populus*. The *majestas* was also ascribed to the dictator, consul and even senate, though, in the case of the latter, the word *auctoritas* was used in preference. The *majestas* was ascribed to persons, or bodies of persons, so far as they had legislative power, the right to declare war and peace, decide on political offences, and elect magistrates. He who violated this *majestas* (for instance, betrayed an army, caused sedition, or infringed the existing institutions or the rights of the people) made himself guilty of the *crimen majestatis.*—See Haubold *De Legibus cr. Laes. Maj.* (Leipsic, 1786, 4to.)—When the republic was overthrown, the dignity, power and name of majesty passed over to the Roman monarchs, and from them again to the emperors of Western Europe (*majestas Augusti*). At a later period, under the Roman emperors, *majestas* was the name of the imperial dignity, whilst that of a magistrate was called *dignitas*. To kings the attribute of majesty was given much later. The courtiers introduced the title in France under Henry II; yet as late as during the negotiations respecting the peace of Westphalia, we find disputes respecting this title. In the treaty of Cambray (1529), the title of *majesty* is given to the emperor Charles V only. In the treaty of Crespy (1544), Charles V is styled *imperial*, Francis I *royal, majesty*; and in the peace of Chateau-Cambresis (1559), the titles of *most Christian and Catholic majesty* are found for the first time. In England, Henry VIII first adopted the title *majesty*. At present, this title is given to all European emperors and kings. The grand seignior is called *highness*. On the continent of Europe, *majesty* is used also to denote the royal dignity and the privileges derived therefrom, even in the case of princes who have not personally the title. On the other hand, the title of *majesty* is sometimes separated from the legal meaning of the word, as in cases of abdicated monarchs who retain the title of *majesty* and *sire*; thus king Stanislaus Leczinsky, of Poland. The few courtiers who surround the deposed Charles X, give him, also the former dauphin, and the duke of Bordeaux, as Henry V, the title of *majesty*. To this title, though in itself so exalted, the awkward obsequiousness of former ages, and the indefinite conception of a religious character attached to earthly rulers, added epithets intended to elevate it still higher, as 'most gracious' in England, 'most highest' (*Allerhöchste*) in Germany.* Before the word *majesty*, if used of the emperor of Austria, the letters *K. K.*

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* The pedantic spirit of the Germans, which shows itself in so many high-sounding titles (see *Counsellor*, and *Ceremonial*), has given a character of formal and labored reverence to the style of addressing princes, which, to manly and simple reason, is little less offensive than the incense offered to an Asiatic monarch. In the titles of the latter, there is, at all events, poetry mixed with the nonsense; but in the former, there is neither reason, nor grammar, nor poetry. In writing, a king in Germany is, at the head of the letter, addressed thus:—*Allerdurchlauchtigster, Allerhöchster, Grossmächtigster, König, Allergnädigster König und Herr*—which, literally translated, would give the following double superlatives: *Most-serenest, most-highest, great-mightiest king, most-graciousest king and lord.* Besides this, the single pronouns *he, they, you,* &c., are, too vulgar to designate a king, and whenever they are used, the prefix *most-highest* (*allerhöchst*) is added: thus we have *most-highest-he* (for *he*), *most-highest-him, most-highest-them,* &c. A prince is addressed as *highest-he, highest-you,* &c., and a mere secretary of state as *high-you, high-they.* We may well exclaim, *Heigh-ho!* An anecdote is told in Germany, which, whether true or not, illustrates what we have said. The late king of Bavaria—a man, by the way, who hated nothing more than the foppery of royalty—was travelling through his country, and the burgomaster of a small place was, according to custom, to deliver his address. He thought that kings were addressed orally as they are in writing. He therefore began, "Most-serenest, most-highest, great-mightiest," &c. Being somewhat bewil-

are put, which stand for *Kaiserlich-Königliche-Mäjestat* (imperial-royal majesty). The pope has given the epithet of *majesty* to several monarchs, as *Catholic majesty* (q. v.) to the king of Spain, *Apostolic majesty* (q. v.) to the king of Hungary, *Most Christian majesty* (q. v.) to the king of France, *Most faithful majesty* (q. v.) to the king of Portugal.—The name of *Majestät's Brief*, or *charter of majesty*, was given to the act by which the emperor Rodolph II granted (June 11, 1609) free exercise of their religion to the adherents of the Augsburg confession in Bohemia. Most of the Bohemians were Protestants. The emperor Matthias abolished the act in 1618, in order to punish the Bohemians for their revolt, which was occasioned by the securing of the succession to king Ferdinand II. This abolition was one of the principal causes of the 30 years' war, and of the intellectual debasement of that fair country. The Bohemians were converted by the sabre to the Catholic faith, and the spirit and intellect of the nation crushed, so that few beings are lower on the scale of cultivation than a Bohemian peasant.

MAJOR, in military language; the lowest of the staff-officers; a degree higher than captain. There appear to have been officers called *majors* as early as 1560, in the German and Spanish troops; they were then the assistants of the colonels. At present, they are generally the commanders of battalions. The French, however, abolished this degree during the revolution; they have *chefs de bataillon.* Their *gros major* is a half-invalid officer, who commands the depot of the regiment.

MAJOR; an epithet applied to that of the two modern modes in which the third is four semitones above the tonic or keynote. Those intervals which contain the greatest number of semitones under the same denomination are also called *major*; as a third, consisting of four semitones, instead of three only, is termed a *major-third*; a sixth, containing nine semitones, instead of eight, is called a *major-sixth.*

MAJOR, in logic; the first proposition of a regular syllogism containing the general premise; as, "All vicious acts are pernicious" (the *major*); "this act is vicious" (the *minor*); "therefore this act is pernicious" (*conclusion*).

MAJORANO GAETANO, known under the name of *Caffarelli*, a celebrated soprano, was born in the Neapolitan territory, 1703. A musician, who had remarked the excellent voice of the boy, advised his father, a peasant, to send him to school at Norcia, afterwards took him into his own house, instructed him, and presented him to Porpora at Naples, who taught him for six years. At the end of that time, Porpora told him, that he could teach him nothing more, and that he was now the first singer in Italy and in the world. In 1738, he went to England, just after Farinelli's (q. v.) departure, but was not in high favor there. After his return to Italy, he sang in several theatres with extraordinary applause, and contributed to extend the florid style of singing. In 1740, he is said to have received 700 sequins for a single night at Venice. He accumulated a large fortune, and purchased the estate of Santo-Dorato, from which he took the title of *duke.* He still, however, continued to sing in the monasteries and churches, at a great price; he also visited Paris. On a sumptuous house, which he had built, was the inscription, *Amphion Thebas, Ego Domum.* At his death (1783), he left his nephew a fortune of 12,000 ducats a year, and his duchy.

MAJORAT; a term used on the European continent to denote, in its widest sense, the order of succession which is regulated by age, and the right of preference which hence belongs to the oldest. It is divided into three kinds:—1. *Primogeniture*, or the right of the first-born, by virtue of which the eldest in the eldest line always succeeds to an inheritance. This law regulates the succession to the throne in almost all the European kingdoms of the present day.—2. The *majorat*, in the narrower sense of the word, gives the inheritance to the eldest of the relatives of the same rank.—3. *Seniority* always secures it to the eldest in the family, without regard to the proximity of relationship.—The majorats cannot lawfully be alienated or mortgaged. The increase of majorats in a state has hitherto been regarded as a species of injustice. The more the wealth of the country is concentrated in a few hands, the more liable is the bulk of the population to be reduced to poverty, and to experience the consequent evils of want, ignorance and crime. The example of England may well deter other nations from that defective system of laws, of which the natural consequence is, that more than 150,000 Britons live on the continent, not to grow wealthy, but to consume their wealth. (See the article *Entailments.*)

MAJORCA; the largest of the Balearic

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dered by the presence of a king, and being accustomed to give such exalted epithets to the Creator only, he continued, carried away by the current of his associations—"Everlasting God and Lord, Almighty Father, Son and Holy Ghost."

islands, lying between 39° 16′ and 39° 57′ N. lat., and 2° 24′ and 3° 31′ E. lon., being about 40 leagues from the Spanish and 50 from the African coast; 1410 square miles, with a population of 181,805 inhabitants. The climate is temperate, the heat being moderated by sea-breezes. The island yields excellent grain, flax, figs, olives, grapes, almonds, oranges, melons, &c. The principal articles of manufacture are tapestry, blankets and sashes, linen, sail-cloth, &c. The coral fishery, the making of wine and brandy, also employ the inhabitants. The administration is composed of a captain-general and a royal audience, under whom is the government of the Baleares. (q. v.) The capital is Palma, with 34,000 inhabitants. Alcudia, on the north-eastern coast, is the only other city.

Major Domus (*maire du palais*); the title of the highest officer of court and state in the monarchy of the French, who was overseer of the household. The dignity of first duke (i. e. commander of the army) was soon connected with this office. The dignity became hereditary, and at length Pepin, who held this office, made himself emperor.—See *Pepin*, and *France*; see also *Geschichte der Merovingischen Hausmeier* von G. H. Pertz (Hanover, 1819).

Malabar (from the Hindoo *Malayvar*, signifying the *mountain, enclosed region*) is the appropriate name of the narrow strip of land which lies between the western Ghauts and the sea, on the western coast of the peninsula of the Deccan. The whole western coast, from cape Comorin to 15° N. lat., is sometimes called the *Malabar coast*, in distinction from the Coromandel coast, on the eastern side of the peninsula. The province of Malabar is a small part of this region, containing about 7249 square miles, with a population of 907,575 persons. It was annexed to the presidency of Madras in 1803. In 1817, the revenue amounted to £225,682. The foreign trade is almost exclusively confined to Bombay, Guzerat, and the gulf of Persia. Calicut, Mahe (belonging to the French), Tellichery are the principal cities; except on the coast, there are no towns nor villages, each land-holder living separately on his own estate. Rice, cocoa-nuts and pepper are the principal productions. The majority of the inhabitants are Hindoos, and, on account of the remote and sheltered situation, they have preserved their manners and customs with greater purity than has been done elsewhere, the Mohammedans never having entered their territory as enemies till the irruption of Hyder Ali in 1766. There are also about 10,000 Nestorian Christians and 150,000 Roman Catholics.

Malacca, or **Malaya**; country of India beyond the Ganges, consisting of a large peninsula, connected with Siam by the isthmus of Kraw, which is about 75 miles broad. In all other places, it is surrounded by the sea. It is about 775 miles long, and 120, on an average, broad. It is traversed throughout by a chain of lofty mountains, and is covered with extensive forests and marshes, so that it is difficult to penetrate into the interior. The fruits are excellent and plentiful, but grain is not produced in sufficient quantity to supply the inhabitants. Its political condition alternates between a dependence upon Siam and a division into a number of petty independent states. (See *Malays*.)

Malacca; a seaport of the above country, on the western coast, and on the straits of Malacca; lon. 102° 12′ E.; lat. 2° 14′ N. Many of the houses are well built of stone, and there are several spacious and handsome streets. The surrounding country is fertile and pleasant. There is a good roadstead about one and a half miles distant from the town, but the entrance of the river by boats is difficult. The exports are tin, sago, pepper, canes, elephants' teeth and gold dust. This place was once possessed by the Portuguese, afterwards by the Dutch, till 1795, when it was subjected by a British force, but restored in 1801, recaptured in 1807, and again restored in 1815. But it was finally received in exchange for the British settlements in Sumatra, and occupied by the British authorities in 1825. Population in 1823, 33,806.

Malacca Passage; channel of the East Indian sea, between Polo Way and the coast of Sumatra, about 13 miles long.

Malacca, Straits of; a narrow sea between the island of Sumatra and the country of Malacca, extending from the equinoctial line to lat. 5° N.

Malachi, the 12th and last of the minor prophets, contemporary of Nehemiah, prophesied, according to Jahn, from 412 to 408 B. C. The name signifies *angel*, or *messenger of the Lord*. Our entire ignorance of his history has given rise to numerous conjectures concerning him. His prophecy is short, his style prosaic and rough, and he denounces with vehemence the corruptions and backslidings of his countrymen. He declares that the Messiah will save the Gentiles, and announces the coming of one who shall precede and prepare the way for the Savior. Among the principal commentators are Jerome, Pococke, Calmet, Rosenmüller, &c.

Malacology (from μαλάκιον, Greek for the *mollusca*); a term now used, particularly by the French, for that part of science which treats of the mollusca.

Malaga; a maritime town of Spain, on the coast of the Mediterranean; lat. 36° 43′ N.; lon. 4° 25′ W.; population, 51,900. It has an excellent harbor, and is situated in the midst of a fertile country, producing great quantities of figs, almonds, oranges, lemons, olives, sumach, juniper-berries, wax and honey, which, with dried raisins and wines from the mountains, and cork from the hills, form the foundation of the commerce of Malaga. Besides these articles, it exports a great variety of manufactured goods made here and in the neighborhood. The port is enclosed on three sides, and is capable of accommodating 400 merchantmen and 19 ships of war. The city presents a Moorish appearance, with high houses, and narrow, crooked, badly-paved streets. There is, however, a splendid public walk, and a rich, but unfinished cathedral. The vineyards on the neighboring hills produce, annually, from 2000 to 3000 pipes of wine. The first vintage, in June, furnishes the Malaga raisins. The second, in September, furnishes a kind of wine resembling Sherry, but inferior to it. In October and November, the sweet Malaga wine is made.

Malagrida, Gabriel; an Italian ecclesiastic, notorious for his intrigues and fanaticism, about the middle of the last century, born in 1686, and, having become a member of the Jesuits' college, was despatched by that fraternity as their missionary to Lisbon. Here he acquired considerable popularity by his eloquence, and his pretensions to extraordinary sanctity. Being accused of participation in the pretended conspiracy of the duke D'Aveiro against the crown of Portugal, he was thrown into prison by the government. But, instead of being tried by the judicial tribunals, he was delivered over to the inquisition, and condemned as guilty, not of treason, but of heresy, uttering false prophecies, and seeing visions, and was sentenced to the stake, and executed September 21, 1761. (See *Pombal.*)

Mal' Aria (Italian, *bad air*); a state of the atmosphere or soil, or both, which, in certain regions in the warm season, produces a fever more or less violent according to the nature of the exposure. The country of the *mal' aria*, in Italy, is the Maremme (q. v.), which extends from Leghorn to Terracina, about 200 miles, and from the sea to the Apennines, from 25 to 30 miles. The centre of the infected district is Rome. (See *Campagna di Roma.*) We are still ignorant of the causes of this fatal infection. It exists in the rice grounds of Lombardy, on the highlands near Padua, on the summits of the Radicofani, and round the gulf of Salerno. The sky of the devoted spots continues pure, the air calm, the verdure fresh; but all this serenity and beauty of nature only forms a shocking contrast with the deathlike desolation around, or with the sickly appearance of the few peasants who venture to wander in the unhealthy district. Bigelow (*Travels in Malta and Sicily*) gives a similar account of its effects in Sicily. It is found in all parts of the island, infesting not only the valleys, but often elevated situations. The city of Rome, it is well known, has been gradually invaded by it, and a large part of the city has been successively deserted by the inhabitants. In 1406, the Lateran was condemned; since 1623, the Vatican has become unsafe; since 1710, the Palatine, the circus Maximus, the forum, and, indeed, the whole of ancient Rome, has been deserted; even the finest parts of the modern city have become unsafe. (See *Rome.*)

Malays; according to sir Thomas Stamford Raffles (*Asiatic Researches*, xii, London, 1818), a people of Asia, who have adopted the religion and language of the Arabians, and intermarried with them, so that they have become separated from their original stock, and form a distinct nation. In the thirteenth century, we find the Malays on the peninsula of Malacca, where they built a city of the same name, and founded an empire. Their sultans subdued Sumatra, where the nation seems to have dwelt previously to their settling in Malacca. They afterwards possessed themselves of the rest of the Sunda isles, of the Philippines, the Moluccas, and some of the Australian groups, where Malay tribes are found, resembling, in their features, religion and government, the Malays of Malacca. At that time, they acted a splendid part in Asia; they carried on commerce, in part, with their own ships, and planted colonies. Great numbers of ships from China, Cochin China, Hindostan and Siam filled the harbors of Malacca. They are now divided into distinct tribes, without any general head. This is partly owing to the superiority which the Europeans, particularly the Dutch, have obtained in the Indian seas, and partly to the feudal system of the Malays, by which the national power has been divided, and a common spirit prevented by the increasing power of the vassals. The superior vassals obey the sultan or supreme commander only when they please, and the vassals under them have similar liberty. The great body of the nation consists of slaves; their masters are the *oramlai*, or nobility, who are independent, and sell their services to him who pays them best. The Malays are different from the Hindoos, Birmans and Siamese. They are strong, nervous, and of a dark brown color; their hair is long, black and shining; the nose large and flat; their eyes brilliant and full of fire. Impetuosity, bordering on fury, treachery, impatience of constraint, love of plunder and blood, characterize the Malays of Asia. Those in the islands of Australia are in general more gentle, kind, affable, open and honest, and are distinguished by the finest and most symmetrical persons. The Malays of Asia, including the Eidahans and Dejakkese, in Borneo; the Biajoos (one of the wildest tribes), and the Macassars, in Celebes; the Harafores, on the Moluccas; the Sabanos, in Magindanao; the Tagats and Pampangoes, in the Manillas; the Bisayans, in the lesser Philippines, have a remarkable resemblance in their features, in their form of government (a sort of feudal system), and in violence and cruelty. In general they profess the Mohammedan religion, are fond of navigation, war, plunder, change of place, and of all daring enterprises. Besides the Koran, the Malays have various local laws; each state has its own, relating chiefly to commerce. The maritime code of Malacca was collected as early as 1276, and confirmed by Mohammed Shah, sultan of the country. They pay more respect to their absurd laws of honor than to justice or humanity, and we find force continually triumphing, among them, over weakness. Their treaties and their promises of friendship continue only as long as the interests which prompted them seem to demand. They are always armed, and are perpetually at war among themselves, or engaged in plundering their neighbors. When they find opportunity, they will attack European and American vessels by surprise, and kill the crews, if they succeed in capturing them. No free Malay is seen without a dagger. The people, in general, are very skilful in preparing weapons, particularly daggers. Their constant use of opium contributes to infuriate them, and, when maddened by its effects, they rush out with their daggers in their hands, yelling, *Amok, amok*, (i. e. kill, kill); whence the expression, *to run a muck*. The Malays are active only in war, where they are excited by the thirst of robbery and blood. At home, they are indolent, leaving all the labor to their slaves, and despising agriculture. (See Marsden's *History of Sumatra*, Crawford's *Indian Archipelago*, &c.)

Malcolm, sir John, major-general in the India service, went out to India at the age of 14, distinguished himself on several occasions, and became lieutenant-colonel in the Madras army. He was afterwards made resident in the Mysore, and, at a later period, minister plenipotentiary from the supreme government of India to the court of Persia. During his mission in Persia, he not only performed his diplomatic duties in a satisfactory manner, but also collected an immense store of information respecting the history and present condition of the Persian empire. He was made knight of the Persian order of the Lion and the Sun, and, in 1812, received the order of the Bath. In 1818, he received the military and civil command of Central India. "Except sir J. Malcolm," says bishop Heber (*Travels in India*), "I have heard of no one whom all parties agree in commending. His talents, his accessibility, his firmness, his conciliating manners, and admirable knowledge of the native language and character, are spoken of in the same terms by all." These qualities enabled him to render his administration eminently useful in restoring order, organizing the provinces, and maintaining tranquillity. Sir John afterwards returned to England, and, in 1827, was appointed to the important post of governor of Bombay. In December, 1830, he resigned that office, and returned to England. He is the author of Sketch of the Seiks (1812); Persia, a poem (1814); History of Central India (second edition, 1824, 2 vols., 8vo.), a valuable contribution to our knowledge of India; History of Persia (second edition, 1829, 2 vols.); and Sketches of Persia (1828, 2 vols., 8vo.)

Mal de Naples; an early name for syphilis, because the disease was spread among the besiegers of Naples, and from them rapidly communicated to others.

Maldive Islands; a cluster of islands in the Indian sea, situated about 270 miles south-west of cape Comorin. The number is said to amount to 1000 or more, but they are for the most part small, and uninhabited. The greatest breadth of the chain is from 20 to 24 leagues. The inhabitants appear to be a mixture of Arabs and Indians of Malabar. They supply vessels with sails, and cordage, cocoa nuts, oil and honey, dry fish, tortoise-shell, and, especially, cowries. They are divided into 17 *attollons*, or provinces, and are governed by one king; but each *attollon* has its particular governor, who rules with great oppression. The subjects are miserably poor; and none dare wear any clothing above the waist, except a turban, without a particular license. They have only four ports, in which their few articles of commerce are collected. They lie in lon. 73° 30′ to 75° 45′ E.; and lat. 3° 30′ to 7° 5′ N. No European settlements have been made in them.

Malea, cape. (See *Matapan.*)

Malebranche, Nicholas, a French priest of the congregation of the oratory, and a celebrated philosopher, was born at Paris, in 1638. His health being delicate, he was classically instructed by a domestic tutor, but afterwards went through courses of philosophy and divinity at the colleges of La Marche and of the Sorbonne. At the age of 22, he determined to embrace the monastic life, and was admitted into the congregation of the oratory. He applied himself first to ecclesiastical history, and afterwards to Oriental learning and biblical criticism; but, having accidentally met with Descartes's treatise On Man, he determined to make himself master of that author's system of philosophy. The result of this study was his famous treatise On the Search after Truth, first printed in 1673, but of which the best edition is that published by himself in 1712, in 2 vols., 4to., and 4 vols., 12mo. The doctrines of this celebrated work, which contains fine thoughts and uncommon reflections, rendered still more striking by his elegant manner of conveying them, are founded upon Cartesian principles, and are, in some particulars, Platonic. It is principally distinguished by the maintenance of a mysterious union between God and the soul of man, and the doctrine that the human mind immediately perceives God, "and sees all things in him." His next publication was Christian Conversations (1676). This was followed (in 1680) by a Treatise on Nature and Grace, which led to several controversial pieces between him and Arnauld. Father Malebranche also wrote several works on physical subjects, and several papers for the academy of sciences, of which he was admitted an honorary member in 1699. Malebranche was highly venerated for his elevated genius, and nothing could be more amiable and simple than his conversation and manners. As a philosopher, although he agreed with those who preceded him, in conceiving ideas to be the immediate objects of perception, he distinguished, more than any previous metaphysician, the object from the sensation which it creates, and thereby led the way to a right understanding, both of our external senses and mental powers.

Malesherbes, Christian William de Lamoignon de, an eminent French statesman, descended from a family of distinguished worth and talents. He was the son of William de Lamoignon, chancellor of France, and was born at Paris, in 1721. After studying at the Jesuits' college, he qualified himself for the legal profession, and became a counsellor of the parliament of Paris. In 1750, he succeeded his father as president of the court of aids, and was also made superintendent of the press, in both which offices he displayed a liberal and enlightened policy, highly honorable to his talents and character. On the banishment of the parliaments, and the suppression of the court of aids in 1771, Malesherbes was exiled to his country seat, where he devoted his leisure to the study of statistics and agriculture, and the improvement of his estate and of the country around it. After the accession of Louis XVI, he resumed his presidentship over the revived tribunal, and, in 1775, was appointed minister of state. Finding his plans for the benefit of the nation counteracted by the influence of others, he resigned his post in May, 1776, and went to reside in Switzerland. He was recalled to the king's councils in 1786, when he drew up two memoirs, On the Calamities of France, and the Means of repairing them; but his advice was rejected, and he therefore took a final leave of the court. Returning to the country, he continued his patriotic labors, and, in 1790, published an Essay on the Means of accelerating the Progress of Rural Economy in France. He took no part in the proceedings which led to the overthrow of the monarchical government; but on the decree of the national convention for the trial of the king, he emerged from his retreat to become the voluntary advocate of his unfortunate sovereign. His generous attachment to his fallen master excited the jealousy of the French rulers, and caused his destruction. Shortly after his return home, his daughter, madame De Rosambo, and her husband, were arrested and conducted to Paris; and his own arrest, with that of his grandchildren, soon followed. Almost his whole family were extirpated by the merciless proscription of his persecutors. Malesherbes was beheaded April 22, 1794, and he bore his sufferings with a spirit worthy of his life. Louis XVIII ordered a monument to be erected to him in the great hall of the Palais de Justice. It was completed in 1826, with the inscription by the king—*Strenue, semper fidelis regi suo, in solio veritatem, præsidium in carcere attulit.*

Malet, Charles François, brigadier-general, was born at Dole, in 1754. Having entered the military service, he embraced the cause of the revolution with ardor, and rose rapidly in the first wars of the republic. At the time of Napoleon's assumption of the imperial dignity, he openly avowed his republican opinions, and was, in consequence, left without employment. His connexions with individuals known to be hostile to the imperial government, rendered him an object of suspicion, and, as no proofs of his guilt could be obtained, he was detained in prison for several years. During his confinement, he became acquainted with Lahorie, formerly attached to Moreau's staff, and general Guidal, who had both been in prison several years. In October, 1812, Malet formed the daring plan of overthrowing a prince then at the summit of his power and glory. For this purpose, he engaged the co-operation of his fellow prisoners, and, having obtained permission to be carried to an hospital, he escaped during the night of October 23, and, presenting himself to the colonel of a regiment of the Paris guards, he persuaded him that the emperor was dead, and that an opportunity was now offered to restore the republic. He also showed him a decree of the conservative senate, abolishing the imperial government, and constituting general Malet commander of Paris. He next hastened to the barracks of the 10th cohort, under the command of Soullier, who had either been previously gained, or was easily made to believe what he desired—the emperor's death and a change of government. Soullier took possession of the Hôtel-de-Ville at eight o'clock in the morning, and Frochot, the prefect of Paris, who arrived soon after, was also brought to believe that the emperor had been killed. Measures were taken for establishing a provisional government, and a detachment under general Guidal hastened to the Hôtel of the Police, seized general Savary, the minister, conducted him to the prison La Force, and installed Lahorie in his place. Malet next proceeded with some soldiers to the quarters of general Hullin (q. v.), but could not convince him that the story of the emperor's death was true, nor that the pretended decree was genuine. After some altercation, Malet discharged a pistol at him, and wounded him in the jaw, but was immediately seized from behind, and thrown to the ground, by general Laborde, adjutant of the post, who, on hearing of the military movements, had hastened to general Hullin's quarters, and had been admitted without opposition by Malet's soldiers. The latter, who appeared to have been ignorant of Malet's designs, consented to conduct him to prison. His accomplices were soon after arrested, and were examined, with him, before a court-martial, the next day. The examination continued two days and three nights. During the whole time Malet displayed the most imperturbable coolness, avowed his designs, and declared himself ready to die. He was shot, with the other conspirators, October 27, in the plain of Grenelle.

Malherbe, Francis de, a celebrated French poet, was born in 1555, at Caen, of an ancient but decayed family. His father was a Calvinist, but, having adopted as a principle, that a "gentleman should be of the religion of his prince," he himself adhered to the church of Rome. He entered into the service of Henry d'Angouleme, natural son of Henry II, and married the widow of a counsellor, by whom he had several children. He did not visit court until his fiftieth year, when Henry IV received him into his service, and gave him a liberal pension, chiefly in consequence of the recommendation of cardinal du Perron, who mentioned him as one who surpassed all the French poets who had preceded him. He died at Paris, in 1627. Although the recorded incidents of his life be few, numerous testimonies abound of his caustic wit, greediness of presents, and litigious temper; he being generally at war with some or other of his relations. He was also lax and licentious in respect both to morals and religion. Such was his zeal for the purity of the French language, that, when near expiring, he reproved his nurse for using a word not duly authorized. He may be deemed the father of cultivated French poetry, being not only an excellent versifier, but possessed of many of the qualities of a poet; not indeed of the highest class, but he was ingenious, harmonious, elegant, and sometimes even elevated. His poetry consists of odes, stanzas, sonnets, epigrams, and other short pieces, with a few of a devotional cast. He also published translations of Seneca *De Benificiis*, and of a portion of Livy, with some letters. The best editions of his works are those of Paris, 1722, 3 vols., 12mo., and 1757, 8vo.

Mall, or **Pall-Mall**, was a game formerly much played in England, in which a box ball was struck through a ring. The *mall* (French, *mail*) was properly the stick (*mallet*) used for striking; but the French *mail* also signified the game itself, more commonly called, by the English, *pall-mall*, or *pail-mail*, and the ground or alley on which it was played, which was often planted with trees. The site of the street now called *Pall-Mall* (pronounced *pell-mell*) was originally appropriated to playing this game, and derives its name from that circumstance. The walk called the *mall*, in St. James's park, also received its name from having been the royal play-ground in the time of Charles II, when mall was a fashionable amusement. The same name has been applied to the public promenade in Boston.

Malleability; a property of metals, whereby they are capable of being extended under the hammer. (See *Ductility*, and *Metal*.) This word has of late been used by some philologists, to indicate the power of certain languages to form words from given roots by adding prefixes and affixes, and thus to express many different shades of the original idea.

Mallet, David, a miscellaneous writer, was born at Crief, in the county of Perth, about 1700, and, in 1720, was a tutor in the family of Mr. Home of Edinburgh. In 1723, he accompanied the two younger sons of the duke of Montrose to Winchester school, and, in the same year, published his admired ballad of William and Margaret. He subsequently made the tour of Europe with his pupils, on his return settled in London, and dropped the name of *Malloch* for *Mallet*. In 1728, he published a poem, entitled the Excursion, and, in 1731, a tragedy, called Eurydice, which met with temporary success. A poem on Verbal Criticism followed in 1733, and he was soon after made under-secretary to Frederic, prince of Wales. His tragedy of Mustapha was produced with success in 1739, and, the following year, his life of lord Bacon appeared, prefixed to a new edition of the works of that great man. In 1747, he published his largest poem, entitled Amyntor and Theodora. On the death of Pope, Mallet lent himself to the resentment of lord Bolingbroke against the deceased poet, for having clandestinely printed his Idea of a Patriot King. For this service, he was rewarded by Bolingbroke with a bequest of his works, the publication of which produced a prosecution. The duchess of Marlborough having left £1000 between him and Glover, to write the life of her husband, the latter declined the task, and it was undertaken by Mallet alone, who received more or less of the recompense, without leaving, on his death, a line towards the work. On the prosecution of admiral Byng, he was employed, by the ministry, to assist in making that unfortunate officer their scape-goat, and was rewarded by a considerable pension. On the accession of lord Bute to the premiership, he wrote his Truth in Rhyme, and tragedy of Elvira, to which a political tendency was given, to serve the politics of that nobleman, and he obtained a place in the customs for his recompense. He died in 1765. The religious skepticism which he avowed, may have assisted to darken the portraits usually given of Mallet; but it is obvious that no partiality could have rendered it amiable.

Mallet; a weapon. (See *Mace*.)

Malleus, in anatomy; a bone of the ear, so called from its resemblance to a mallet, and in which is observed the head, the neck, and handle, which joins the membrane of the tympanum. (See *Ear*.)

Mallicolo, or **Manicolo**; an island in the South Pacific ocean, which, according to captain Dillon, should be considered as forming one of the group called Queen Charlotte's islands; lat. 11° 41′ S.; lon. 167° 5′ E. It has acquired an interest from having been the place where Lapérouse (q. v.) was cast away, as appears from the results of the expedition of captain Dillon, who went on a voyage of investigation, in 1827 (*Narrative*, &c., 2 vols., 8vo., London, 1829). The relics which he obtained from the island, were identified by Lesseps (q. v.), who had left Lapérouse in Kamtschatka, and by Betham, as having the armorial bearings of Colignon, botanist on board the frigate. According to the information obtained by captain Dillon, two ships had been thrown ashore; the crew of one perished; the people of the other built a small vessel, and went to sea; what became of them is not known; of two Frenchmen who had remained on the island, one died about three years before the arrival of captain Dillon; the other had followed the fortunes of a defeated chief to some other island. Lesseps has published (Paris, 1831) the *Voyage de Lapérouse*, with all the documents and results of the researches since made to discover his fate. This island must not be confounded with Malicolo, one of the New Hebrides, in lat. 16° 30′ S., lon. 167° 50′ E.

Mallouines, or **Malouines.** (See *Falkland Islands.*)

Malmaison; a château, two and a half leagues from Paris, and one and a half from Versailles, in one of the most charming situations in the vicinity of the great metropolis. It was the residence of Joséphine, who died there in 1814, and whose grave is indicated by a simple monument. In its beautiful walks, Napoleon loved to find recreation from the cares of state. It received its name (*mala domus*) from its having been erected on the spot where the Normans landed on one of their incursions in the ninth century.

Malmesbury, William of, an ancient English historian of the twelfth century, was born in Somersetshire, on which account he was sometimes called *Somersetanus.* He relates that, when he was a child, he had a great inclination for learning, which was encouraged by his parents, and it is supposed that he was educated at Oxford. He became a monk of Malmesbury, and was elected librarian of the monastery. He studied all the sciences of his time, but attached himself particularly to history, and finding that a satisfactory account of his own country was wanting, he determined to write one, "not," as he himself says, "to display his learning, which is no great matter, but to bring to light things that are covered with the rubbish of antiquity." His *De Regibus Anglorum* is a general history of England, in five books, from the arrival of the Saxons, in 449, to the 26th Henry I, in 1126; a modern history, in two books, from that year to the escape of the empress Maud from Oxford, in 1143; with a church history of England, in four books, published in sir H. Savile's collection (1596). He discovers great diligence, good sense and modesty. His Antiquities of Glastonbury was printed by Gale, and his Life of St. Aldhelm, by Wharton. He died in 1148.

Malmsey Wine is a sweet wine, made from a grape originally brought from Monembasia, a small town on the south-east coast of the Morea. The English call the place by its Italian name, *Malvasia,* and the French, *Malvoisie;* hence the name of the wine, *Malmsey* (*vin de Malvoisie*). Much of the Malmsey now used is made from a grape grown on rocky ground, in Madeira, exposed to the full influence of the sun. It is left to hang about a month later than the grapes used for the dry wines, and is not gathered until partially withered. (See Henderson, *Hist. of Wines,* 250.)

Maloes, St. (properly, **St. Malo**); a seaport on the western coast of France; lat. 48° 39′ N.; lon. 2° 1′ W.; population, 9860. It is situated on a peninsula, which is connected with the main land by a narrow causeway (the Sillou). The harbor is large and commodious, but difficult of access. The fortifications are extensive and strong. The inhabitants are active, hardy, intelligent seamen, and are occupied in the cod and whale fisheries, in the East India and colonial trade. Wine, brandy, tobacco, salted provisions, hemp and tar, are the principal articles of trade. In 1622, this place fitted out 22 privateers; in 1711, it gave 30,000,000 livres to Louis XIV. It is the native city of Maupertuis, Duguay-Trouin, and Cartier, the discoverer of Canada.

Malone, Edmund, a commentator and editor of Shakspeare, was born at Dublin, in 1741. After completing his studies at Trinity college, he entered at the Inner Temple, London, and was called to the bar in 1767. Possessing a competent fortune, he gave up his profession, and employed himself in literary pursuits. After having been the coadjutor of Steevens, in his edition of Shakspeare's plays, Mr. Malone quarrelled with that gentleman, and published an edition of his own, in 11 vols., 8vo., 1790. He also published an Inquiry into certain Papers attributed to Shakspeare (see *Ireland*); biographical memoirs of sir Joshua Reynolds, Dryden, W. Gerard Hamilton, &c. He died May 25, 1812.

Malpighi, Marcello; an eminent Italian physician and anatomist of the seventeenth century. He was born in 1628, near Bologna, and studied in the university of that city. He was admitted M. D. in 1653, and, three years after, was appointed to the medical chair. The grand-duke of Tuscany invited him to become professor of medicine at Pisa, where he staid three years, and, in 1660, returned to occupy his former office at Bologna. He was tempted by a high stipend to accept the professorship of medicine at Messina, in Sicily; but the jealousy of his colleagues rendered him uneasy, and he again settled at Bologna, in 1666. He was elected a fellow of the royal society of London in 1669, and communicated to that association various anatomical discoveries relative to the minute structure of animal bodies, the results of microscopical observations. Pope Innocent XII, in 1691, called him to Rome, and appointed him his physician, chamberlain, and domestic prelate, which posts he held till his death, in 1694. His works, relating to anatomy, physiology and vegetable anatomy, comprise much curious and important information on the brain, the nerves, the spleen, the uterus, &c.; also on silk-worms, the formation of the fœtus in the egg, on glands, on the anatomy of vegetables, &c. His complete works have been often published (London, 1687, &c.). His posthumous works were published at London (1697, folio), and republished at Venice and Leyden. Gasparini published his *Consult. Med. Centuria* at Padua (1713). Although Malpighi is not free from errors, yet he contributed much to the progress of physiology, and deserves a distinguished place among discoverers.

Malplaquet, Battle of (Sept. 11, 1709); the bloodiest in the war of the Spanish succession, gained by Marlborough and Eugene, the commanders of the allies, against the French under Villars. After the capture of Tournay, the allies wished to invest Mons, the capital of Hainault. To prevent this, Villars marched against them: an older marshal, the noble and valiant Bouflers, served under him as a volunteer. The French army was 70,000 strong, with 80 pieces of cannon. The allies, who numbered about 80,000 men, with 140 pieces of cannon, commenced the attack, near the wood in the neighborhood of the villages of Blangies and Malplaquet. Marlborough commanded the English troops, and the German troops in the English pay, on the right wing. Eugene led the centre; Tilly and a count Nassau, the left wing, where the Dutch were stationed. Villars commanded the right wing of the French forces; Bouflers, the left. The left wing of the allies was put to flight, and Marlborough had to struggle against the most furious attacks upon the right. The Pretender, son of James II, chevalier St. George, charged twelve times, at the head of the French cavalry. Villars then weakened his centre, by despatching reinforcements for the left wing. At this crisis, Eugene advanced, stormed the entrenchments which covered the enemy's centre, and drove back the guards. The marshal hastened thither from the left wing, but too late; he was wounded himself; his centre was broken through, and the wings separated. The battle was lost. The field was covered with about 30,000 dead and dying. The French lost hardly 10,000; the allies, more than 20,000. The conquerors took no prisoners nor cannon. Bouflers conducted the retreat in good order, between Le Quernoy and Valenciennes. The allies immediately laid siege to Mons, which fell into their hands.

Malt is the preparation of barley, from which ale, beer and porter are brewed, all which are generally denominated *malt liquors*. For this purpose, the barley is steeped in water for three or four days. It is then taken out and suffered to lie until it begins to sprout or germinate. As soon as this process has advanced sufficiently, its further progress is prevented by drying it in a kiln, heated by coal or coke, for which purpose the anthracite coal is found to answer admirably well. The grain is now become mellow and sweet, and after having been crushed in a kind of mill, contrived for the purpose, its saccharine and mucilaginous portions are extracted by boiling water. The liquor thus produced has the name of *wort*, which, having undergone the process of fermentation, and having been flavored by the addition of hops, &c., constitutes ale or beer. What remains of the malt after brewing, is called the *grains*, which are used for feeding horses and cows. The tax upon malt, in England, constitutes a very important item in the English revenue. Besides the use of barley for malt, it is also extensively used for soup, broth, bread, &c., in all the countries of Europe. (See *Fermentation.*)

Malta (anciently, *Melita*); an island in the Mediterranean, possessed, through several centuries, of a degree of celebrity and power greater than has ever been attached to any other territory of so little extent; lat. 35° 53′ N.; lon. 14° 30′ E. (of the observatory of the grand master); 60 miles from Sicily; 200 from Calipia, the nearest point of Africa; separated from the small island of Gozo by a strait four miles wide, comprising, with Gozo and the rock Cumino, which lies between, about 170 square miles. The population of the group was, at one time, 114,000; at present, 94,000; of which 14,000 belong to Gozo. Besides the natives, there are English (about 700, besides the military), Jews, Greeks, Turks, Egyptians, Italians, French and Dutch. The Maltese, English and Italian are the predominant languages. The soil consists of a thin covering of earth, on a soft, calcareous rock, and is increased by breaking up the surface of the stone into a sort of gravel, and mixing it through the earth. To the south-west, the land rises precipitously more than 1200 feet; to the north-east, it is low. There is but one small stream in the island, which is conducted, by an aqueduct of several thousand arches, and eight miles long, to Valetta; a supply of water is obtained by cisterns, in which the rain water is collected. The southern shore is rocky, and without any harbor; that of Marsa, on the east, forming the port Valetta, is one of the best in the Mediterranean, being completely landlocked, and capable of containing 500 vessels. The climate is hot, but the heat is mitigated by a sea breeze, which always sets in at night. The principal production is cotton. Melons and oranges, of an excellent quality, are abundant. Corn is raised in small quantities. Figs are cultivated with great care, the process of caprification (see *Figs*) being practised. The Maltese are of African origin; with a swarthy skin, hair inclined to frizzle, and nose somewhat flattened. They are industrious, frugal, and excellent seamen; but poor, ignorant, superstitious, vindictive and dishonest. The upper class speak Italian, but the language of the common people is a *patois*, compounded of Arabic (which is the fundamental and principal part), German, Greek, Italian, and other languages. The Arabic so far predominates, that the peasants of Malta and Barbary can understand each other. They have no alphabet, and, according to the fancy of individuals, adopt those of other tongues. The capital is Valetta, founded in 1566, by Lavalette (q. v.), grand master of the knights of Malta, with a population of 40,000. It is remarkable for the magnificence of its buildings, and the position and strength of its fortifications. The church of St. John, the patron of the order, is a noble building, 240 feet long and 60 wide, which contained great riches, until they were seized by the French. The hotels of the knights corresponding to the eight languages into which the order was divided (see *John, St., Knights of*) are now occupied by the English officers. The palace of the grand master is an extensive pile, and contains a magnificent armory of ancient and modern weapons. The great hospital afforded accommodations for 2000 patients, who were attended by the knights. The vessels used in the hospital service were of solid silver. Immense granaries, cut out of the rock, were stored with corn, sufficient to maintain the garrison 20 years. They were hermetically closed, and the grain has been preserved in them, so as to be fit for use after a hundred years. The fortifications are the strongest in the world. Besides five forts, commanding the most important points, there are lines of vast strength, enclosing the various quarters, and forming works of such extent as to require 25,000 men to man them, and 100,000 to invest the place completely. Valetta is protected on three sides by the water, and on the fourth, by five lines of fortifications. The ditches are, in some places, 90 feet deep, hewn out of the rock, and the ramparts are mostly formed in the same manner. 1000 pieces of cannon are mounted on the works.—Malta was early in the hands of the Carthaginians, who were dispossessed by the Romans. (On the antiquities, inscriptions, vases, coins, &c., consult the *Malta antica illustrata*, by Bres, Rome, 1816, 4to.) It was occupied, in the middle ages, by the Saracens and Normans, and, in 1530, was conferred, by Charles V, on the knights of St. John, who had been expelled from Rhodes by the Turks. It was soon fortified by the knights, and underwent several memorable sieges. In 1798, general Bonaparte took possession of it, on his expedition to Egypt; and, in 1800, the French garrison was obliged, by famine, to capitulate to a British force. In 1814, the possession of it was confirmed to Great Britain by the treaty of Paris.—See Boisgelin, *Ancient and Modern Malta* (London, 1805, 2 vols., 4to.); and Bigelow's interesting *Travels in Malta and Sicily* (Boston, 1831); Vassalli's *Grammatica della Lingua Maltese* (Malta, 2d ed., 1827.)

Malte-Brun, Conrad, a learned and industrious geographer, and an active political writer, was born in 1775, in the Danish province of Jutland. His family is of considerable consequence in Denmark. His father destined him to the church; but the son had no taste for theology, and, while at the university of Copenhagen, he gave himself up to literary pursuits, published a volume of poems, and edited a theatrical journal. The father was of the aristocratic party, which called for a war with France: the younger was a partisan of freedom, and wrote in favor of the emancipation of the peasants and the liberty of the press. A party having arisen which demanded the establishment of a free constitution, Malte-Brun became one of the most active members of it. In 1796, he published, against feudality, and the coalition of sovereigns, a bitter satire, called the Catechism of the Aristocrats. This drew upon him a prosecution, which compelled him to take refuge in Sweden; and, while there, he put to press some poems, which had been read to the academy of Stockholm. When count Bernstorff (q. v.) was on his death-bed, he recommended to the prince-royal to recall Malte-Brun, and employ him in a diplomatic capacity. In consequence of this, the exile returned to Denmark, in 1797, and was favorably received by the ministers; but, having publicly attacked some of their arbitrary measures, he was again under the necessity of taking flight to Sweden, whence he soon after removed to Hamburg. It is said to have been about this period that he became either the founder, or one of the most active members, of a secret society, called the *united Scandinavians*, the object of which was to unite the three kingdoms of the North into one federative republic. At a somewhat later period, he was also concerned with another association of the same kind, and this object he seems to have zealously pursued for many years: he did not, indeed, desist from it till after the downfall of Napoleon. His scheme excited so much alarm, that Paul of Russia and Gustavus of Sweden demanded from the Danish government the punishment of those who were engaged in it. A prosecution was accordingly commenced against Malte-Brun, who was then at Paris, and he was sentenced to banishment. He settled at Paris in 1799, and continued to reside there till his death, in 1826, devoting himself to the labors of literature, particularly to geographical subjects. Between 1804 and 1807, he published, in conjunction with Mentelle, Political, Physical and Mathematical Geography (16 vols. 8vo.). In 1807, appeared his Picture of Poland; and, in 1808, he began a periodical work, with the title of Annals of Voyages, Geography and History, which extended to a large number of volumes. In 1814 and 1815, he produced another periodical, called the Spectator, which was completed in three volumes. His System of Universal Geography is the most complete of all the geographical systems. An English translation has been made, and it has passed through several editions in the U. States, one of which contains many corrections by J. G. Percival. Malte-Brun was also connected with the Journal of Debates, and other papers. In 1825, he published a treatise on legitimacy.

Malthus, T. R., reverend; the son of Daniel Malthus, esquire, of Albury, near Guildford, a gentleman of considerable erudition, and the suggester of the work on population, ascribed to his son, which appeared anonymously in 1798, and had its foundation in Wallace on the Numbers of Mankind, and Lucas on Happiness. He received his education at Jesus college, Cambridge, of which college he was subsequently a fellow. The Essay on the Principles of Population, printed under his name, in 1803, obtained a rapid circulation, and was translated into French by Prevost, professor of natural philosophy at Geneva. The fifth edition appeared in 1817 (3 vols., 8vo.). Its leading principle is, that population has a tendency to increase more rapidly than the means of subsistence. It has met with much opposition, and has lost much of its early reputation. His next work was a Letter to Samuel Whitbread, Esquire, on his proposed Bill for the Amendment of the Poor-Laws (8vo., 1807). He has since published Observations on the Effect of the Corn-Laws, and of a Rise or Fall in the Price of Corn on the Agriculture and general Wealth of the Country (1814); an Inquiry into the Nature and Progress of Rent (1815); the Grounds of an Opinion on the Policy of Restricting the Importation of foreign Corn (1815); and Additions to the Essay on the Principles of Population. When the East India company established the college at Hertford, Mr. Malthus was appointed professor of history and political economy; and, on the subject of this institution, he published a Letter to Lord Grenville (1813); and Statements respecting the East India college (1817). He is also the author of Principles of Political Economy (1820); Definitions in Political Economy (1827).

Malvasia; a district in the Morea. The chief place, called *Malvasia di Romania*, is situated on an island, and connected with the continent by a bridge. It is a fortress; has a bishop, and 2000 inhabitants. Since the late division of Greece, Malvasia forms a province of the department Laconia. The well-known cape Malea belongs to Malvasia. The famous Malmsey wine is made here (also on some other Greek islands). A similar kind of wine is also made in Sicily, Sardinia, in Provence and Spain. Among the Sardinian wines of this sort, the *Malvagia di Sorso* is particularly distinguished. The Spanish sort comes mostly from Catalonia and Teneriffe. There are both red and white kinds. (See *Malmsey Wine*.)

Mamelukes, Mamlouks, or **Mamalukes** (from the Arabic *memalik*, a slave); slaves from the Caucasian countries, who, from menial offices, were advanced to dignities of state. They did not, however, form a separate body; but, when Gengis-Khan made himself master of the greatest part of Asia, in the thirteenth century, and carried vast numbers of the inhabitants into slavery, Nedjm-eddin (Malek Salah), sultan of Egypt, bought 12,000 of them, including natives of Mingrelia and Circassia, but chiefly Turks from Capchak (Kipzak), had them instructed in the military exercises, and formed a regular corps of them. They soon exhibited a spirit of insubordination and rebellion. Under his successor, they interfered in the government, assassinated the sultan, Turan Shah, and, in 1254, appointed Ibegh, one of their own number, sultan of Egypt. The dominion of the Mamelukes in Egypt continued 263 years. The command was usually held by the bravest of their number. During this period, they made some important conquests, and, in 1291, they drove the Franks entirely out of the East. Selim I put an end to this kingdom, after having taken Cairo, the capital, by storm, in 1517. He placed a Turkish pacha as governor over Egypt, but appears to have been compelled, by circumstances, to leave the 24 beys, who governed the different provinces, in possession of their power. This state of things continued more than 200 years. But, from the middle of the last century, the number and wealth of the Mamelukes gave them such a superiority over the Turks in Egypt, that the pacha appointed by the Porte was obliged to conform entirely to their wishes. This superiority was owing principally to Ali Bey, who ruled with unlimited power, from 1766 to 1773, when he was assassinated. The Mameluke beys, especially Murad Bey, played an important part at the time of the French invasion. The Mamelukes, who were scattered throughout Egypt, and estimated at 10 or 12,000 men, maintained their numbers, principally by slaves brought to Cairo from the regions lying between the Black and Caspian seas. These were compelled to embrace the Mohammedan faith, and were all educated as soldiers. After a time, they obtained a share in the government, and some of them even became beys; for none but Mamelukes were capable of holding this office. They formed a fine body of cavalry, and attacked the French, when they landed in Egypt, with the greatest fury; but they were unable to withstand the European artillery, and many of them soon joined the French. The present pacha of Egypt, Mohammed Ali (q. v.), destroyed the beys, in 1811, by a stratagem.

Mammalia, Mammiferous Animals, in zoölogy; those animals which produce their young alive, and feed them with milk from their own breasts or dugs. Man, quadrupeds, and the cetacea, are mammiferous. (See *Animals.*)

Mammee-Tree, or West India Apricot (*mammea Americana*); a large and beautiful tree, native of tropical America, and interesting from the qualities of the fruit, which is highly esteemed. This fruit is large, roundish, and contains a bright yellow, firm pulp, which is enveloped with a thick, leathery rind: within this outer rind is a second very delicate one, closely adhering to the pulp, which should be cautiously removed, otherwise it leaves a bitter taste in the mouth, not very strong at first, but gradually increasing, and continuing for two or three days. The taste is peculiar, sweet, and very agreeable, and is accompanied with an aromatic, pleasant odor. The tree belongs to the *guttiferæ*, the same family with the *mangosteen*, and attains the height of 60 or 70 feet. The leaves are oval, obtuse, very entire, smooth, and 6 or 8 inches in length. The flowers are white, an inch and a half in diameter, and diffuse a delightful perfume.

Mammon; the Syrian god of riches, mentioned in the teachings of Jesus as a personification of worldliness. Spenser has personified Mammon in his noblest manner (book ii, canto 7), where sir Guyon is represented amid the secret treasures of the "god of the world and worldlings."

Mammoth (Russian *momot*); a species of extinct elephant (q. v.), found in a fossil state, entirely distinct from the existing species of Asia and Africa. (See *Elephant.*) It has left proofs of its existence in Europe, in Northern Asia, and in America. A great quantity of fossil ivory is obtained from Siberia, and it is visible, almost every where, on the banks of rivers, which undermine the soil. Whole carcasses, covered with flesh and skin, preserved by the eternal frost of those regions, have even been found in the northern parts of Siberia. The bones have been occasionally found in all parts of Europe, and have given rise to stories of giants. They have been found in Kentucky, South Carolina, and other parts of the U. States, and Humboldt discovered them on the elevated plain of Quito. A mammoth, in complete preservation, was seen by Adams, a traveller in Siberia, who found the skeleton to be 9½ feet high, and 14 long, from the tip of the nose to the *coccyx*. The tusks were 9 feet long. The scientific name of this animal is *elephas primogenius* (Blumenb.), or *eléphant fossil* (Cuv.). It is not to be confounded with the mastodon, a gigantic fossil animal of North America. (See *Mastodon*, and *Organic Remains.*)

Mammoth Cave; a stupendous cave in Kentucky, near Green river, 130 miles south-south-west of Lexington. It has been penetrated 9 or 10 miles, and has many windings that have not been explored. The depth is 60 or 70 feet. It contains figures, some of which are of immense size and fantastic form; but is more remarkable for its extent than the variety or beauty of its productions, having none of the beautiful stalactites found in many other caves. The earth is strongly impregnated with saltpetre, and large quantities of it are manufactured.

Man, in natural history, according to some naturalists, although, it must be confessed, rather from motives of pride than from anatomical considerations, forms the order *bimana*, in the class *mammalia;* according to others, and more scientifically, is included in the family *bimana*, in the order *anthropomorpha*, which contains, also, the two families of *quadrumana*, or proper monkeys, and *lemurs*. The family *bimana*, according to this classification, contains three genera,—*man*, the *orang-outang*, and the *gibbon*. Linnæus was the first who ventured to class man (*homo, homo sapiens*) in a scientific system with other animals; and he did not escape the censure of some, as degrading the dignity of the human race by such an approximation; but classification is a mere statement of a fact in anatomy, and the philosopher, who observes and interprets nature, is not surely to blame. Man, then, whether considered as the head of the animal creation, and a part of it; or as a sole genus and sole species, distinct from others, and lord of all; whether defined to be a biped without feathers, or a quadruped without hoofs, a monkey with a voice, or a monkey without a tail,—if viewed solely in a physical light, and setting aside his divine reason, and his immortal nature,—is a being provided with two hands, designed for prehension, and having fingers protected by flat nails, and two feet, with single soles, destined for walking; with a single stomach, and with three kinds of teeth,—incisive, canine and molar. His position is upright, his food both vegetable and animal, his body naked. It has been made a subject of dispute, whether there is more than one species in the human race; but it is merely a dispute of words; and if the term *species* is used in its common scientific sense, it cannot be denied that there is but one species. There are, however, certain and constant differences of stature, physiognomy, color, nature of the hair, or form of the skull, which have given rise to subdivisions of this species. Blumenbach reduces these varieties to five: 1. The first variety occupies the central parts of the old continent, namely, Western Asia, Eastern and Northern Africa, Hindoostan and Europe. Its characters are the color of the skin, more or less white or brown; the cheeks tinged with red; long hair, either brown or fair; the head almost spherical; the face oval and narrow; the features moderately marked, the nose slightly arched; the mouth small; the front teeth placed perpendicularly in the jaws; the chin full and round. The regularity of the features of such a countenance, which is that of the European, causes it to be generally considered (by them at least) as the most agreeable. The Hindoos, the Abyssinians, the Brebers, or inhabitants of mount Atlas, have features not essentially differing from those of the Europeans, except in the color of the skin, and which, among the Hindoo and Abyssinian mountaineers, is quite fair. Blumenbach calls this variety the *Caucasian*, from its supposed origin in the Caucasus. 2. The second variety was formerly called the *Tartar*, but improperly, as the Tartars do not belong to it. It has more recently been called the *Eastern* variety. The color in this race is yellow; the hair black, stiff, straight, and rather thin; the head almost square; the face large, flat and depressed; the features indistinctly marked; the nose small and flat; the cheeks round and prominent; the chin pointed; the eyes small. This variety comprises the Asiatics to the east of the Ganges and of mount Beloor, except the Malays. In Europe, it embraces the Finns and Laplanders; and, in America, the Esquimaux. Other writers have classed the Finns, as descendants of the ancient Scythians, in the first variety. 3. The American variety resembles that last described in several points. Its principal characters are the copper-color; stiff, thin, straight black hair; low forehead; eyes sunk; the nose somewhat projecting; cheek-bones prominent; the face large. This variety comprises all the Americans except the Esquimaux. There are several branches, however, which differ considerably. 4. The fourth variety of Blumenbach appears yet more arbitrary and uncertain than the last. It is called by him the *Malay*, and described as of a tawny color; the hair black, soft, thick and curled; the forehead a little projecting; the nose thick, wide and flattened; the mouth large; the upper jaw projecting. This variety comprehends the islanders of the Pacific ocean. 5. The remaining variety is the Negro. Its characters are, color black; hair black and woolly; head narrow; forehead convex and arched; cheek-bones projecting; nose large, and almost confounded with the upper jaw; the upper front teeth obliquely placed; the lips thick; the chin drawn in; the legs crooked. This race is found in Western and Southern Africa, and the great islands of the Pacific, generally in the interior. There are very great differences in the tribes included in this variety: the Negro, with the complexion of jet, and wool; the Caffre, with a copper complexion, and long hair; the sooty Papous, or New Guineaman; the native of Van Diemen's Land; the Haraforas, who are found in Borneo, and the Hottentots, hardly differ more in situation than in features. (See Blumenbach, *De Varietate nativa Generis Humani.*) Bory de St. Vincent, in his *Essais Zoologiques sur l'Homme*, divides the human race into 15 species, and numerous varieties. Man, considered in his nobler character of a social, moral, religious and political being, will be more appropriately considered under other heads. (See *Language*, *Philology*, *Political Institutions*, *Religion.*)

Man, Isle of (the *Monœda* of Ptolemy); an island belonging to Great Britain, in the Irish sea, nearly equidistant from the coasts of England, Scotland and Ireland; 30 miles long, and 12, where widest, broad; 70 in circumference; square miles, 220; population, in 1821, 40,084; chief towns, Castletown (the capital), Douglas, Peel and Ramsay; lon. 4° 30′ W.; lat. 54° 15′ N. The interior is mountainous. Snowfield, or Snafield, the highest summit, is about 2000 feet above the sea. The soil, not naturally very productive, is greatly fertilized by the abundance of sea-weed cast upon the shore. Agriculture, of late, has made great advances. The productions are barley, wheat, oats, turnips, potatoes, flax, cattle, sheep, poultry, &c. The island contains 17 parishes, under the jurisdiction of a bishop, styled *bishop of Sodor and Man*, who is sole baron of the island. The Manx language, a kind of Gaelic, prevails in the interior, but English is spoken in the towns. On the south is a small island, called the *Calf of Man*, which is separated by a narrow channel.—In 1405, the island was granted to lord Stanley, and, in 1735, became vested in the duke of Athol. In 1764, it was sold to Great Britain for £70,000, with all its rights of sovereignty.

Man-of-War; a ship of war; an armed ship.

Man-of-War Bird. (See *Albatross.*)

Manakin (*pipra*, Lin.). This is a small genus of birds peculiar to South America, having a compressed beak, thicker than broad, grooved; nasal fossæ large. Their tail and feet are short. In their general form and proportions, they are not very unlike the titmouse. They are generally small, and inhabit the depths of forests, being seldom seen in cultivated fields. The largest of these birds, the *P. militaris*, is distinguished by a beautiful crest of red feathers upon its head. Its back is of a fine blue, and the rest of the plumage of a deep black.—Closely allied to these birds is one of the most extraordinary of the feathered tribe,—the cock of the rock (*rupicola*). This bird is as large as a pigeon, is of a bright orange color, and is furnished with a double crest of feathers on its head, placed in the form of a fan. They live on fruits, scratch the earth like the common fowl, and form their nest of dry wood, in deep holes in the rocks. The female lays two eggs.

Manasarowara, a lake of Thibet, among the Himalaya mountains, is one of the most venerated of all the places of pilgrimage resorted to by the Hindoos, who visit it in great numbers, in spite of all the difficulties of the journey. The Thibetians also hold it in great reverence, and come from great distances to throw into it the ashes of their friends. It is about 15 miles long and 11 broad, and, with its borders of lofty crags, and its towering barrier of snow-capped mountains, forms a magnificent scene. Its shores are covered with monastic houses.

Manasseh; eldest son of Joseph, born in Egypt. When brought with Ephraim to receive the blessing of his grandfather Jacob, the old man placed his right hand upon the head of the younger, and his left upon that of Manasseh, thus depriving the latter of the precedence due to his priority of birth. The descendants of Manasseh formed a tribe, which, in the promised land, was settled, half beyond the Jordan, and half in the territory of Samaria, Sichem and Bethany. (See *Hebrews.*)

Mancando (abbreviated *manc.*, Italian) is used in music to denote that the time of a piece must become slower and slower, and the tone by degrees vanish.

Mancha, La; a province of Spain in New Castile, almost every way surrounded by mountains, forming an immense plain, intersected by ridges of low hills and rocks; not an enclosure of any kind, except mud walls, about the villages; not a tree to be seen, except a few dwarfish evergreen oaks and olive plants, scarce deserving the name. All this vast tract of open country is cultivated in corn and vines. A traveller says, "There is no laborer nor young female peasant, who is not well acquainted with Don Quixote and Sancho." This is the most cheerful country of Spain; the inhabitants are affable, and great lovers of music and dancing; population, 214,087; square miles, 8000; chief towns, Ciudad-Real and Ocana.

Manche, Department of La; in the north-western part of France, on the British channel, called in French *La Manche*. (See *Department*, and *Channel*.)

Manchester; an ancient town in Lancashire, England, known for its extensive manufactures; 186 miles N. W. of London, 33 E. of Liverpool; lat. 53° 29′ N.; lon. 2° 14′ W.; population in 1801, 84,000; in 1811, 98,000; in 1821, 133,788, and, in 1831, including the neighborhood, 233,380. Manchester stands on the eastern bank of the river Irwell, near its junction with the Irk and the Medlock. The Irwell is rendered navigable to Liverpool, and, by means of canals, the town has communication with the waters on both shores of the island. (See *Canals of Great Britain*.) It is also connected with Liverpool by the Liverpool and Manchester rail-road, traversed by steam-carriages, moving with an almost incredible speed. On the opposite bank of the Irwell stands Salford, which, though under a different jurisdiction, is so connected with Manchester as always to be comprehended in the same statistical reports. The town presents nothing remarkable in an architectural point of view. It has a college, an hospital for the maintenance of poor boys, a library, and several establishments for the promotion of education and science. The philosophical and literary society has published transactions containing some valuable memoirs. The ground on which Manchester stands is a perfect level, and from whatever side it is approached, its crowd of spires, towers, manufactories and warehouses appears mingling with the smoke that hangs over it. It is to the cotton-trade that the town owes its wealth and growth. The productive powers of machinery have even expanded in a much greater proportion than the increase of its population. The inventions of Arkwright produced a new era in its history. The processes of carding, spinning, weaving, and many of those of bleaching, dyeing and printing, are conducted by means of machinery, which, in productive power, is equivalent to a population of several millions. Between 1814 and 1828, more than 200 steam-engines were set up, carrying over 30,000 looms for weaving alone. Of 703,200 bales of cotton imported into Liverpool (1825), nine tenths were consumed at Manchester. Besides the manufacture of every kind of cotton goods, there are iron founderies, shops for making machines, &c., which consume great quantities of the coal abundant in the neighborhood. Manchester does not send any member to parliament, but the reform bill proposes to give it two members. (See *Parliamentary Reform*.)

Manchineel (*hippomane mancenilla*); a West Indian tree, celebrated for the poisonous qualities of the milky juice which abounds in every part of it. When a drop of this juice is applied to the skin, it causes the same sensation as a burning coal, and quickly produces a vesicle. The Indians use it for poisoning the points of their arrows, which preserve their venom for a long time. The workmen employed in felling these trees, first build a fire round the trunks, in order to make the juice evaporate, and cover their eyes with gauze; but, notwithstanding these precautions, they are subject to be incommoded with the dust. The accounts, however, which represent it as dangerous to sleep in the shade, or to come in contact with the rain which has fallen upon this tree, are highly exaggerated. The inhabitants of Martinique formerly burnt entire forests of the manchineel, in order to free their dwellings from its presence. This tree belongs to the natural family *euphorbiaceæ*; the leaves are alternate, ovate, serrate and shining; the fruit has the form, color and scent of a small apple, and contains a nut about as large as a chestnut. It is said that drinking copiously of sea-water is the best remedy, when a portion of this fruit has been swallowed. It grows in the West Indies, and other parts of tropical America, in the immediate vicinity of the ocean.

Manco Capac, legislator and first inca of the Peruvians, was the 12th in ascent from the inca who reigned at the time of the Spanish invasion in 1532, an interval computed by the natives at about 400 years. Their tradition was, that this person, with Mama Oella his wife, and sister, appeared suddenly in an island of the lake Titiaca, and declared themselves to be children of the sun, sent down to civilize and instruct them. Manco accordingly taught the men agriculture and other useful arts, whilst his wife instructed the women to spin and weave. He taught the Peruvians to revere internally, as the highest and unknown deity, Pachakamak, i. e. the soul or support of the world; externally, however, and as an inferior and visible deity, the sun, his parent; and he ordered sacrifices to be offered to the latter, as the benefactor of men. Perhaps some stranger, from a civilized land, appeared in Peru, and employed religion to procure an ascendency which enabled him to form a regular government. Manco Capac died after a long and prosperous reign, and, as far as tradition may be relied upon, seems justly to have been entitled to rank among the benefactors of mankind by the benevolence of his institutions. (See Robertson's *History of America.*)

MANDAMUS. A writ of *mandamus* (we command) is, in general, a command issuing from some superior court, as the court of king's bench in England, and, in the U. States, the supreme court of the U. States, or a superior or supreme court of any state, directed to some inferior court, or to some person or corporation, requiring them to do some particular thing, which such superior court has previously determined it to be their duty to do, or, at least, supposes to be consonant to right and justice. It issues where a party has a right to have a thing done, and has no other remedy, and in some cases where he has another, but a tedious and inadequate one. It is either in the alternative, ordering the court, corporation or party, to which or whom it is directed, to do the thing specified, or to appear and show cause why it should not be done; or absolute, commanding the thing specified to be done without any condition or alternative. The writ is usually first issued in the alternative, directing the party complained of to appear, and show cause against its being issued absolutely, and in case of there being no appearance, or no sufficient cause to the contrary being shown, an absolute *mandamus* is issued. The cases enumerated for the issuing of this writ, by sir William Blackstone, are—to compel the party applying to be restored to some office or franchise of a public nature, whether temporal or spiritual; to an academical degree; to the use of a meeting-house, &c.: it lies for the production, inspection or delivery of public books and papers; for the surrender of the *regalia* of a corporation; to oblige bodies corporate to affix their common seal; or to compel the holding of a court. It may be directed to an inferior court, ordering it to proceed in the hearing of a cause, or to enter up a judgment. It is sometimes directed to a corporation, directing them to choose officers. The statute of 2 Geo. II, *c.* 4, provides for its being issued to command an election of a mayor or other chief magistrate of a city, town or borough; and so, where one is elected to any office, as town-clerk, or is legally elected member of any public body, as one of the aldermen of a city, and is refused admission or recognition as such, this writ may be issued in his behalf. By an act of the congress of the U. States, passed Sept. 4, 1789, the supreme court has power to issue "writs of *mandamus* in cases warranted by the principles and usages of law, to any courts appointed, or persons holding office under the U. States."

MANDAN; a fort and Indian village on the Missouri, 1600 miles from the Mississippi, by the course of the river; lon. 100° 50′ W.; lat. 47° 20′ N. This place is remarkable for the encampment of Lewis and Clarke, during the winter of 1804–5, when on their expedition up the Missouri. They state, that on the 17th of December, the thermometer fell here to 45° below 0. The Mandan Indians are in this vicinity.

MANDANE; the mother of Cyrus. (See *Cyrus*, and *Cambyses*.)

MANDARINS; the official nobility in China. (See *China*, vol. iii., p 145.)

MANDATE; an order in Germany, used for a decree of a court of justice, by which, on the application of a plaintiff, something is ordered or prohibited to the opposite party. The process is unconditional (*sine clausula*) if no legal opposition can be anticipated, conditional (*cum clausula*) if the other party is at liberty to make remonstrances.—*Mandate* was also the name given to a certain kind of paper-money in the French revolution. After the *assignats*, which had been kept in circulation by the violence of Robespierre, had lost all credit, a new money was created,—the *mandates*,—founded, like the *assignats*, on the credit derived from the confiscated property, but with the essential difference, that specific pieces of property, enumerated in a table, were pledged for the redemption of the bills, whilst the assignats furnished only a *general* claim. The mandates could be realized at any moment, as the owner was authorized to take any portion of the property enumerated on the table, as soon as he made his intention known, and paid the quarter part of its assigned value without any further formality. First 600,000,000 of mandates were created, but soon after (March 18, 1796), 2,400,000,000. A forced circulation was given to them, by which the government was enabled to defray the expenses of the approaching campaign. This was hardly done, when they also sunk to nothing; they were, therefore, in part redeemed, while the rest disappeared of themselves. Instead of sinking under this burden, France owed her deliverance to this measure. The evil carried along with its excess its cure.

Mandeville, sir John, a celebrated English traveller of the fourteenth century, was born at St. Alban's. He was of a respectable family, and bred a physician; but a desire to visit foreign countries induced him, in 1332, to set out upon a course of travels, in which he is said to have spent 34 years. During this period, according to his own account, he visited the greater part of Asia, Egypt and Libya, making himself acquainted with many languages, and collecting a great mass of information, true and false, which he committed to writing in Latin, French and English. He died at Liege, in 1372, where a monument is erected to his memory, the inscription on which denominates him *John de Mandeville, alias De Barba, Lord of Campoli.* The only genuine edition of his travels, entitled the *Voiage and Travaile of Sir John Maundevile, Knight*, was printed from an original manuscript in the Cotton library (1727, 8vo.). His extreme credulity in the collection of absurd and fabulous stories is only surpassed by his unblushing indulgence in the most extravagant fictions.

Mandeville, Bernard, a writer and physician of considerable temporary celebrity, was born in Holland about 1670. He was probably of English extraction, as he fixed his residence in England, and wrote his works in the English language. His most celebrated production is the Fable of the Bees, or Private Vices made Public Benefits, first printed in 1723. The reasoning in this piece is founded on the sophism, that the luxury and superfluity which mark the advanced stages of society, and the vices which they engender, are often the causes of national prosperity, and hence the necessary prevalence of vicious principles in human nature. Consistently with this doctrine, his general views of mankind are of the most disparaging tendency; and he declares against all attempts to exalt the humble classes by education. Many answers appeared, among which was one by bishop Berkeley, to whom he replied in 1723, in his Letter to Dion. His Free Thoughts on Religion (1720), was deemed deistical. He also wrote several other works. He died in 1733.

Mandingoes; a nation of negroes found in different parts of Western Africa, in Senegambia and Guinea. They are of the Mohammedan religion, and their language is, in some measure, the commercial language of Western Africa. They are superior to most of the African tribes in civilization.

Mandola, or **Mandoline**; an instrument, the name of which is much more musical than its tones. The Italian name is *mandola, mandora.* It has four strings, belongs to the lute and guitar species, and is played with a quill as well as with the finger. There are also instruments of this kind with six or more strings, which, therefore, approach nearer to the nature of the lute (q. v.). It is chiefly in use in Italy, and is pleasing when it accompanies the easy song of the country people. The strings are of steel or brass

Mandragora and **Mandrake**; a name given by the ancients to a root which grew cleft into two parts, and resembled the human form. Hence miraculous powers were attributed to it, and the herb it produced was called *circæum.* According to Josephus (*Antiquit.*, book viii. chap. 2), Solomon had such a plant, which drove away demons. Pliny, in his Natural History (lib. 25, cap. 13) directs how it should be dug up; and Josephus, who called it *bararas*, states something similar. This root was supposed to have a double sex, and to make prolific; hence commentators on the Bible have conjectured that it was the fruit which Rachel desired of Leah, according to Genesis xxx. 14.

Mandrake. (See *Mandragora.*)

Mandshures, or **Mantchoos.** Two nations, the Mandshures and Tunguses, whose common origin is proved by their traditions, their language and their physical conformation, belong to the Mandshure race, which wanders over the vast deserts in the east of Siberia and north of Mongolia. They were known in the earliest times under the name of the *Kins*, or *Niutshes.* From A. D. 926 they were tributary to the Khitans, and dwelt to the north of Corea, in Eastern Tartary, as far as to the Eastern sea and the Amour. In 1114, they revolted, under Okota, against the Khitans, and, in 1118, established the kingdom of Kin, in China, which was called from the founder of the dynasty. In 1125, Tai-tsong overthrew the kingdom of the Khitans, in the north of China; he then attacked the Song, who had called him in to their assistance, compelled Wey-tsong to cede to him a part of China, and deprived his successor of the remainder of northern China, leaving him only the southern part of the country. The Mongols, hitherto vassals of the Kins, revolted under the successor of Tai-tsong, and compelled the latter to cede to them a part of their territory. In 1208, Gengis-Khan refused the payment of tribute; in 1212 and 1213, entirely defeated the Kins, threw off the yoke, and made the Kins themselves his tributaries. In 1215, Ning-tsong, sovereign of China, of the dynasty of Song, refused to pay the tribute. In 1221, the Kins were deprived of part of their territory, by Gengis-Khan. In 1230, Oktai continued the war, and reduced the kingdom under Gnai-tsong. After the expulsion of the Kins from China, they first re-appeared in 1556, under the name of the *Mantchoos.* They found reception in Lea-Tong, between Sharra-Mongolia and Corea; but, in 1616, they invaded China under Tienming, and made extensive conquests. To increase the confusion, the rebel Li excited an insurrection, attacked the emperor Wey-tsong, in 1643, and defeated him. The emperor hanged himself, and thus put an end to the dynasty of Ming, the last family of native princes in China. A reconciliation was now effected with the Mantchoos. Tsonte drove Li out of Pekin, but died in the midst of his conquests, which were completed by his son, in 1644, since which period the Mantchoos have been the sovereigns of China. There are at present no Mantchoos within the Russian territory; a part of them, when the Russians came to Siberia, left their possessions in East Siberia, extending from lake Baikal to the Mongolian mountains, and along the river Amour, and withdrew to the Amour and China; those who remained, and submitted to the Russian government, fell under the jurisdiction of China, by the treaty of Nertchinsk, by which Russia gave up all the Amour and the Mantchoos, who were its subjects. The Stanovoi-krebet mountains now form the boundary of the country inhabited by the Tunguses, part of whom are tributary to China, part to Russia, and part are independent.

MANE. (See *Hair.*)

MANEGE, or MANAGE, is used to denote the art of breaking and riding horses, or the place set apart for equestrian exercises. It is borrowed from the French, who derive it from the Italian *maneggio.* Some writers derive it from the Latin, *a manu agendo.* Most horses are, by nature, extremely docile, and, when proper means are used with them, they are very well disposed to obey their masters. These ought, therefore, to endeavor, from the commencement, to acquire the confidence of the animal, by kind and gentle treatment, and by avoiding all unnecessary severity. Some horses, indeed, are naturally vicious or obstinate, and must be occasionally punished; but the chastisement should be inflicted with judgment and discrimination. Spirit has been sometimes mistaken for vice, and many horses, not naturally vicious, have been rendered so by severity and injudicious treatment. A horse's education may commence between the ages of two and three years, and it will greatly facilitate future operations if he has been housed during the winter. About this age, a halter or cavesson (a noseband) should be put upon the foal, that he may become familiar with it. The groom, too, when he cleans the animal, should lift each of his feet, and strike them gently with a piece of wood or a hammer, after which he will readily submit to be shod when necessary. Next, before feeding, the groom should put a saddle on the back of the foal, and remove it again with great caution. After a while, the girth may be bound over the saddle, and the foal left to stand and feed. Every thing should be taught gradually and gently, to avoid the danger of rendering the animal timid or vicious. The horse should now be made to run at the end of a long rein, held in the hand, a noseband being put on his nose, and a man following him, if necessary, with a long whip. This exercise should be performed with great gentleness, and but little at a time, that the horse may not be fatigued, stupified or discouraged. After he has acquired a firm, regular, and determined motion, he may be mounted. Only a trench or snaffle and cavesson should be used at first. The bit and bridle should not be introduced till the horse has been taught to carry his head high, and is free in his motions. A fine carriage is to be given to the horse by bringing his head in such a position as to form a perpendicular line from his forehead to his nose, after which his head should be brought a little more inwards by pulling the inward rein gently and by degrees, and crossing the outward rein a little over, whereby he acquires the most beautiful position, and is better able to go through his exercises. The natural paces of a horse are a walk, a trot, and a gallop, to which some horses, of themselves, add an amble. In a walk, a horse lifts two legs on a side, one after the other, beginning with the hind leg first; in an amble, two legs on a side at the same time; in a trot, two at the same time, and keeps two on the ground crosswise. In galloping straight forward, the horse may lead with either fore leg, but unless the hind leg on the same side follows it, the legs are said to be disunited; in this pace, all four legs are off the ground at the same time. In galloping in a circle, the innermost fore leg should lead, or he is said to gallop false. The canter or hand gallop is not considered as a natural pace: it is an easier gallop, in which the hand presses on the bridle, to restrain the speed. When the horse has learned to go forward freely, he should be exercised for some time in the manner above pointed out, first at a walk, and then at a trot. The trot is to render him supple in the shoulders, and to make him go with a free, united and determined action, for which no pace is so well adapted. A horse light in hand should be put to the extended trot. When he goes freely, he should be brought together by degrees, until he bends his legs, and goes unitedly and equally. If, when kept together, he slackens his pace, push him forward, still keeping him gently in hand. If he is heavy in hand, he must be thrown back on his haunches, to shorten his steps and collect his strength. He must not be suffered to sink his neck, and poke out his nose. When he has been wrought up into a proper position, he should be made still more supple in the shoulders, by the lesson of the *épaule en dedans*, which is, perhaps, the most important lesson of any. For this purpose, the bend of the neck must be procured in the manner formerly described. When he has been ridden in this position till he goes with perfect steadiness and freedom, the rider should walk him forwards to the right, and endeavor, almost imperceptibly, to place him so that the hinder feet keep the straight line of a wall, while the fore feet come out about a foot and a half inwards, towards the centre. This must be effected by crossing the outward rein, in the right hand, towards the left, a little backwards, which compels the horse to bring the right shoulder forwards, and to cross the inward leg over the outward. The rider should also press his right leg to the horse's side, which brings in his shoulders. The same crossing should afterwards be effected in the hinder legs, by bringing in the fore legs, &c. In every exercise, the rider should avoid all unsettled motion and wriggling with the legs. Every thing should be effected by the hands only, and the legs should be used only in case of necessity. After the horse has been taught to go freely on this lesson to the right, the rider may change to the left. The horse should be ridden in the same manner across the course, and exercised alternately to the right and left, until he crosses his legs with perfect facility. He may now, perhaps, be taught to back. Whenever the rider stops, he should back a few paces, and then put the horse forwards by little at a time. In backing, if he attempts to rear, push him out immediately into a full trot. When the horse has been sufficiently practised in the *épaule en dedans*, he should be made to traverse a passage with his head to the wall and with his croup to the wall. The motion of his legs in passaging to the right, is the same with that of the *épaule en dedans* to the left, and so *vice versa*, but the head is always bent and turned differently. In the *épaule en dedans*, the horse looks the contrary way to that which he goes; in passaging, he looks the same way as he is going. The directions for executing this lesson are similar to those of the *épaule en dedans*. The equilibrium of the rider's body is particularly necessary. Bits should not be used until the previous lessons have been well practised with the trench or snaffle. Horses should be taught to leap by degrees, beginning with small leaps. The rider must keep his body back, raise his hand a little, to help up the fore parts of the horse, and be very attentive to his balance, without raising himself in the saddle, or moving his arms. Horses should first leap standing, then walking, then trotting, then galloping. A low bar, covered with furze, is best to begin with, as it pricks the legs of the horse if he does not raise himself sufficiently, and prevents him from acquiring the dangerous habit of touching. In order to teach horses to stand fire, and to bear the sound of drums and other noises, they should be first accustomed to them in the stable at feeding time. All other things necessary to make a horse steady may be easily taught by good judgment, patience and gentleness. Of all bad tempers and qualities in horses, those which are occasioned by ignorant riders and harsh treatment, are the most common and the worst. (For mounting, &c., see *Horsemanship*.)

Manelli, Pietro; a comic singer, who, about the year 1750, went at the head of a company of Italian singers to Paris, and gained the public favor by his comic talent. A warm dispute arose between the favorers of the modern Italian music and the old French style. The parties were called *buffonists* and *antibuffonists*. The chiefs of the parties were Grimm and Rousseau. The Italian music was victorious.

Manes, among the Romans; the souls of the dead. The good spirits were also called *lares*, and the evil *larvæ*. Some regarded them as the good and evil genii, which attend men through life. The manes were reckoned among the infernal gods; but a belief was prevalent, that they sometimes appeared upon the earth in the form of ghosts, particularly on the 30th of August, 4th of October, and 7th of November; whence the Romans considered these unlucky days. The superstitious notion that the spirits of the departed had an important influence on the good or bad fortune of the living, especially of those with whom they had been formerly connected, produced a general fear of them, and made people very cautious of offending them. As they were supposed to persecute those who disturbed their remains, tombs were held sacred, and victims (*inferiæ*) and libations offered to the manes. When it was not known whether a corpse had been buried or not, a cenotaph was erected, and the manes were solemnly invited to rest there, from fear that otherwise they would wander about the world, terrifying the living, and seeking the body which they had once inhabited. It was also supposed that they delighted in blood; various animals were, therefore, slain upon the funeral piles,—particularly those of which the deceased had been fond during his life,—and burned with the body.

Manes; founder of the sect of Manichæans. (See *Manichees*.)

Manesse, Rüdiger von; a native of Zurich, who, in 1336, when the aristocrats of his city, expelled by the burgomaster Bruns, threatened to return with the support of Austria, received the chief command from his fellow citizens, was victorious, and saved the liberty of Zurich. After the death of Bruns, he was chosen burgomaster. He was a lover of poetry, and formed a collection of 140 love-songs, called after him the *Manesse collection*. It remained until the beginning of the 17th century in Switzerland, but was carried off, and, during the 30 years' war, found its way to Paris, where it was discovered, in 1726, by Ch. von Bartenstein. Part of the manuscript was published in 1748 (2 vols., Zurich); in 1758, and 1759, complete, by Bodmer and Breitinger. It is important in the history of German literature.

Manetho; an ancient Egyptian historian, who was high priest of Heliopolis, in the reign of Ptolemy Philadelphus, about 304 B. C. He wrote in Greek a history of Egypt, from the earliest times to the last years of Nectanebis, and pretended that he had taken it from the sacred pillars of the first Hermes Trismegistus; the inscriptions on which, after the flood, were translated into Greek, but written in the sacred characters, and deposited in the sacred recesses of Egypt. The manifest absurdity of this pretension induces several writers to think, that some mistake or corruption has taken place in the passage of Eusebius which relates it. The work of Manetho, which is lost, consisted of three parts, the first of which contained the history of the gods or heroes, and the second and third that of twenty dynasties of kings, which, having been epitomized by Julius Africanus, are recorded by Eusebius. Several fragments of Manetho are preserved by Josephus, in his work against Apion. (See *Seyffarth*, and *Hieroglyphics*.)

Manfredi, Eustachio; an eminent mathematician and astronomer, born in 1674, at Bologna, in Italy. He applied himself to the cultivation of mathematical science, and, in 1698, was appointed professor of mathematics in the university of Bologna. In conjunction with Victor Stançari, he commenced a series of astronomical observations, of which he afterwards published an account in his *Schedæ Mathematicæ*. In 1703 appeared his treatise on the Solar Maculæ; and the following year he was chosen regent of the college of Montalto, and also surveyor-general of the rivers and waters of the Bolognese territories. In 1705, he published a work on the Reformation of the Calendar; and he afterwards began the composition of his *Ephemerides Motuum cœlestium*, which he carried on from 1715 to 1725. On the foundation of the institute of Bologna, in 1712, Manfredi was appointed astronomer to that establishment. He was admitted an associate of the royal academy of sciences at Paris, and, in 1729, a foreign member of the royal society of London. He died in 1739. Besides the works already noticed, he was the author of other mathematical and astronomical productions; and after his death, appeared a volume of his poems.

Manganese, in the condition of an ore, had been used in certain arts, before its nature, as a distinct metal, was known. Scheele and Bergman, from an examination of this ore, inferred that it chiefly consisted of the oxide of a peculiar metal. To obtain the metal pure, the mineral is dissolved in muriatic acid, the oxide of iron precipitated by ammonia, and the solution evaporated to dryness; the residuum, after heating to expel the muriate of ammonia, is pure oxide of manganese, which is made into a paste, with a small quantity of oil and charcoal, and exposed, in a crucible, to the most intense heat of a powerful wind-furnace; the result of the process is the manganese in the metallic form. Hydrogen gas, passed over the heated oxide, will also reduce it. The metal is of a white color, with a shade of gray, having a moderate lustre, which tarnishes, however, on exposure to the air. Its texture is granular; it is brittle and hard; specific gravity, 8.; heated in oxygen or chlorine, it takes fire, and forms an oxide or chloride. The oxides of manganese have exercised the skill of many chemists, and are hardly yet determined beyond controversy. Three, most probably four, well defined oxides may be obtained; and some intermediate oxides, compounded of these, exist in nature. The *protoxide* is best obtained by transmitting hydrogen gas over the deutoxide, peroxide or carbonate of manganese, ignited by a spirit-lamp, in a glass tube. It is permanent in the air, but, when heated to 600° Fahr., it absorbs oxygen very rapidly, and, at a low red-heat, it passes from its green color, almost instantaneously, into black. It consists of manganese 76.82, and oxygen 23.18. It is the basis of all the proper salts of manganese, which, when pure, are colorless. The *deutoxide* is prepared by exposing the nitrate or peroxide of manganese, for a considerable time, to dull ignition. It is found native in the prismatoidal manganese ore (gray oxide of manganese), and consists of 70. metal + 30. oxygen. When heated with sulphuric acid, oxygen gas is extricated with effervescence, and a protosulphate results. The *peroxide* exists native and crystallized in perfect purity. It may be artificially prepared, by heating the dry proto-nitrate till a uniform black mass be formed, which must be pulverized, washed while hot with strong nitric acid, and again gently calcined with constant stirring. It contains twice as much oxygen as the protoxide. The *red oxide* is formed by exposing the nitrate, or peroxide of manganese, to a white heat, out of the influence of smoky vapors. It has a brownish-red color when cold, and is nearly black while warm. It consists of two proportionals of the protoxide, and one of the peroxide. It dissolves, in small quantity, in dilute sulphuric acid, without disengagement of oxygen gas, forming an amethyst-red liquid. On heating this solution, or dilute sulphuric acid, or the red oxide, oxygen is evolved, the color disappears, and a proto-sulphate remains. Strong muriatic acid dissolves the red oxide into a colored solution, which exhales chlorine, and gradually passes into a colorless proto-muriate. A compound, possessing very singular properties, as respects the colors to which it gives rise when in solution, and which, from this circumstance, has received the fanciful name of the *mineral chameleon*, is formed by fusing together the native black oxide of manganese and potash, or its carbonate, which, on being dissolved in water, communicates to it a greenish-blue color. The solution, on standing a little time exposed to the air, lets fall the oxide of iron which it contains, and the color becomes blue; and, on the addition of warm water, or an acid, the solution assumes a violet color, from which it soon passes to red, brown, black, and lastly becomes colorless. When the color of the solution is bluish-green, the manganese is believed to be united with the alkali, in the condition of manganeseous acid; and when it is red, the manganese is supposed to be in the state of manganesic acid. The manganeseous acid is, according to this view, very easy of decomposition. When combined with potash, it forms a submanganesite; and whenever the potash is saturated, or its action weakened, the manganeseous acid is decomposed into deutoxide of manganese and manganesic acid; hence the changes of the solution. According to the experiments of Frommherz, the manganesic acid has a dark carmine-red color, tastes sweetish at first, but afterwards bitter and astringent, and is destitute of smell. When heated with care, it volatilizes. It is decomposed by a current of hydrogen gas, the hydrogen acids, carburet of sulphur, the metals, and all organic substances. The salts of manganese are usually prepared from the black peroxide. The acids, which have a strong affinity to the protoxide, expel the excess of oxygen, especially if their action is aided by heat; with other acids, it is necessary to add a little carbonaceous matter, as sugar, to abstract a portion of oxygen from the peroxide. The principal salt is the *sulphate* of manganese, which may be thus prepared: the acid acts very slowly on the metal itself; if diluted, however, it acts more quickly, hydrogen gas being disengaged, of a fetid smell. The solution, when concentrated, is of a rose color; when obtained neutral, it affords, on evaporation, granular crystals of a reddish color, transparent and soluble. Its taste is styptic and bitter, and it is very soluble in hot water. *Nitrate* of manganese may be formed from the carbonate. It is very soluble, and difficult to crystallize. It may also be formed by making the acid act on a mixture of peroxide of manganese and sugar or gum; the vegetable substance serving to reduce the manganese to a minimum of oxidizement, while much carbonic acid is evolved. The muriatic acid is equally incapable of combining directly with the black oxide, but according to the usual law, it de-oxidates it: one part of the muriatic acid is decomposed; its hydrogen combines with the excess of oxygen of the black oxide, to form water; the chlorine, the other element of this portion of the acid, is evolved; and the rest of the muriatic acid unites with the protoxide of manganese, to form the *muriate*. The solution of muriate of manganese is of a rose color when concentrated, and affords, by evaporation, small crystals of a pale rose color, which are four-sided tables; they are deliquescent, very soluble in water, and, by a red-heat, are converted into a red chloride. *Carbonate* and *phosphate* of manganese may be formed by double decomposition, being thrown down in the state of insoluble precipitates. The salts of manganese suffer decomposition from the alkalies, which precipitate the oxide: they are not decomposed, however, by the inflammables, or the other metals, which is a proof of the affinity of manganese to oxygen. Oxide of manganese combines with those earths capable of vitrification, and with their compounds, and communicates to the glasses which they form a violet tinge; it imparts the same color, also, to borax and other vitrifiable salts. When heated with these fluxes, by the blow-pipe, the color soon disappears in the interior flame, from de-oxidation, but appears again if a little nitre be added. *Sulphuret* of manganese was obtained by Berthier, by heating the sulphate in a charcoal crucible; it was of a gray color and crystalline appearance. Manganese, from its infusibility, does not combine readily with many of the metals. It shows, however, considerable affinity to iron, occurring frequently combined with it in nature. It is contained, also, in those ores of iron which are best adapted to the fabrication of steel, and is supposed to improve the quality of steel. Gold and iron are rendered more fusible by a due addition of manganese; and the latter metal is rendered more ductile. Copper becomes less fusible, and is rendered whiter, but of a color subject to tarnish. Manganese is applied to no use in its metallic form. The black oxide is employed by the chemist in preparing oxygen and chlorine gases. It has long been used in the art of glass-making, to counteract the green tinge communicated by the iron contained in the materials—an effect which it produces by yielding oxygen to the oxide of iron, and bringing it to a high degree of oxidation; in a larger quantity added to glass, it gives a purple color. It is also used to give a black color to earthen ware.—*Ores of Manganese.* 1. *Gray manganese ore* is found in prismatic crystals, whose primary form may be considered as a right rhombic prism of 100° and 80°. It also cleaves parallel with both the diagonals of this prism. The crystals are usually slender and much striated, longitudinally. Fracture uneven; lustre metallic; color dark steel-gray to iron-black; streak brownish-black; opaque; brittle; hardness about that of limestone; specific gravity, 4.626; it also occurs in twin crystals, in reniform, botryoidal and other imitative shapes, with a surface generally rough and drusy; composition columnar, of various sizes of individuals, often forming a second granular composition. In the massive varieties, the granular or columnar composition often becomes impalpable, in which cases the fracture is earthy. Gray manganese ore has been divided into several sub-species, chiefly in consequence of its mechanical composition. *Radiated* gray manganese ore comprises long acicular, or reed-like prisms, and such massive varieties as consist of columnar particles of composition, while the *foliated* one refers to short prisms and granular compositions. *Compact* gray manganese ore contains varieties composed of impalpable granular individuals, and *earthy* gray manganese ore, such as have lost their coherence, and appear in the state of an earthy powder. The composition of some varieties belonging to this species, has been found by Klaproth to be—

Black oxide of manganese,	90.50	89.00
Oxygen,	2.25	10.25
Water,	7.00	.50

It is infusible before the blow-pipe, and colors glass of borax violet blue. It is insoluble in nitric acid. In heated sulphuric acid, it disengages oxygen; and chlorine is evolved, if it is brought into contact with muriatic acid; also, before the blow-pipe, or alone in a strong heat, it gives out oxygen. The gray manganese ore frequently accompanies the hæmatitic iron ores; and sometimes its earthy and compact varieties constitute beds by themselves. It also occurs in veins, particularly in porphyry, along with sulphate of barytes. Its most celebrated localities are Ihlefield in the Hartz, and Œhrenstock in Thuringia. It has numerous localities also in Saxony, Bohemia, Hungary, France and England. It has been observed in many of the American states; but occurs most abundantly in Vermont, at Bennington and Monkton, accompanied with hæmatite and uncleavable manganese ore. The uses of this species of manganese ore, wherever it occurs in quantity, are very important for various chemical operations, and for none more so than the manufacture of chloride of lime, the ordinary bleaching powder. Its use in the manufacture of glass, is also very considerable. *Black wad* deserves to be mentioned under this species, as a very remarkable substance among those which contain manganese. It occurs in reniform, botryoidal, fruticose and arborescent shapes, in froth-like coatings, on other minerals, or massive. Its composition is generally impalpable, and the fracture even or earthy. Color brown, of various shades; opaque; very sectile; soils and writes; hardness below that of talc; specific gravity, 3.7; the varieties are very light, when dry; yet, as they imbibe water with violence, when immersed into it, they sink immediately. Mixed with linseed oil, it undergoes a spontaneous combustion. It consists of—

Oxide of manganese,	68.
——— iron,	6.50
Water,	17.50
Carbon,	1.00
Baryta and silica,	9.00

It has been found in the Hartz, in Devonshire and Cornwall in England, also at one locality in the U. States, in Connecticut. The black wad is conceived to be the coloring matter in the dendritic delineations upon steatite, limestone and other substances.—2. *Pyramidal manganese ore* is a rare mineral, occurring crystallized in octahedrons, with a square base, whose pyramids are inclined to each other, at an angle of 117° 30′. Fracture uneven; lustre imperfect metallic; color brownish-black; streak dark-reddish or chestnut-brown; opaque; hardness equal to that of apatite; specific gravity, 4.72. It also occurs massive, possessed of a granular composition. It is probable that the variety from Piedmont, analyzed by Berzelius, belonged to this species; if so, its composition would be, oxide of manganese, 75.80; silica, 13.17; oxide of iron, 4.14; and alumine, 2.80. In the oxidating heat of the blow-pipe, it yields a fine amethyst-colored glass. It is soluble in heated sulphuric acid. It has been found in veins, in porphyry, along with other ores of manganese, at Oehrenstock, near Ilmenau in Thuringia, and at Ihlefield in the Hartz.—3. *Compact manganese ore*, or *uncleavable manganese ore*, occurs in reniform, botryoidal and fruticose shapes, having a columnar or granular composition, sometimes impalpable. Fracture flat conchoidal, or even; lustre imperfect metallic; color bluish-black, passing into dark steel-gray; streak brownish-black; shining; opaque; brittle; hardness nearly equal to that of feldspar; specific gravity, 4.14. It occurs sometimes accompanied by hæmatite, but generally along with other ores of manganese, in veins, in the older rocks. It is found at numerous places in Europe, and in the U. States.—4. *Manganese blende*, or *sulphuret of manganese*, is one of the rarest ores of this metal, and has hitherto only been found at Nagyag in Transylvania, and in Cornwall. It is rarely crystallized, generally occurring massive, in distinct concretions. Color iron-black; lustre imperfect metallic; streak dark green; opaque; rather sectile; hardness but little superior to that of calcareous spar; specific gravity, 4.014. It consists of protoxide of manganese, 85.00, and sulphur, 15.00. Before the blow-pipe, it is melted with difficulty. If reduced to powder, and thrown into nitric, muriatic, or dilute sulphuric acid, it emits sulphureted hydrogen, and is dissolved.—5. *Phosphate of manganese* occurs massive, with a cleavage in three directions, perpendicular to each other, one of which is more distinct than the rest. Fracture small conchoidal; lustre resinous; color blackish-brown; streak yellowish or reddish-gray; opaque; brittle; hardness above that of apatite; specific gravity, 3.43. Before the blow-pipe, it melts easily into a black scoria; is readily dissolved in nitric acid, without effervescence, and consists of oxide of iron, 31.00; oxide of manganese, 42.00; and phosphoric acid, 27.00. It has hitherto been found only at Limoges in France, and at Washington in Connecticut.—6. *Carbonate of Manganese* is found crystallized in rhomboids of 106° 51′, and massive. Fracture uneven, imperfect conchoidal; lustre vitreous, inclining to pearly; color various shades of rose-red, partly inclining to brown; brittle; hardness but little above that of calcareous spar; specific gravity, 3.59; the massive varieties present globular and botryoidal shapes; composition granular, sometimes small, and even impalpable; it consists of oxide of manganese, 54.60; carbonic acid, 33.75; oxide of iron, 1.87; silica, 4.37; lime, 2.50. It effervesces rather briskly in nitric acid; before the blow-pipe, its color is changed into gray, brown and black, and it decrepitates strongly, but is infusible without addition. It is found in the Saxon mines in the neighborhood of Friberg; also at Nagyag in Transylvania. (For an account of the red and reddish-brown siliceous ores of manganese, see *Silicate of Manganese.*)

Mangel-Wurzel; a kind of beet, which does not afford fodder of as good quality, nor in such abundance, as was supposed at the time of its introduction; but it is valuable from its size and hardy nature. The leaves may be eaten as a substitute for spinach, and continue in season long after that plant has withered. In some parts of Germany, the farmers prefer it, for their cattle, to most vegetables; and, besides, it can be obtained at the latter part of the season, when green fodder is much wanted.

Mango; a celebrated fruit, now produced in most of the tropical parts of the globe. It is a native of India, and was introduced into Jamaica in the year 1782. The taste is delicious, slightly acid, and yields only to the mangosteen. The tree is allied to the sumach, and belongs to the natural order *terebinthaceæ*. It attains the height of 30 or 40 feet, has a rapid growth, and is very productive. The leaves are simple, alternate, lanceolate, coriaceous, smooth and entire. The flowers are inconspicuous, reddish, and disposed in large terminal panicles. The fruit is kidney-shaped, subject, however, to a good deal of variation in size, form and color, and contains a large, flattened stone. More than 80 varieties of mango are cultivated, some of which are very beautiful, and diffuse a delightful perfume.

Mangosteen. This far-famed fruit is the product of a middling-sized and beautiful tree, the *garcinia mangostana* of botanists, and was originally brought from the Molucca islands, but is now cultivated in many parts of the East Indies. The leaves are large, opposite, smooth, coriaceous and entire: the flowers are terminal and solitary, and of a deep-red color: the fruit is shaped like, and about as large as, an orange, divided internally into several cells, each containing a single seed. It belongs to the *guttiferæ*, a natural family, which is not found beyond the tropics. It is, on all hands, admitted to be the most delicious, as well as the most wholesome, of all known fruits, and yet we have not heard of its introduction into any part of inter-tropical America, although great pains have been taken to transport thither so many of the productions of the East.

Mangrove (*rhizophora*); a genus of plants, consisting of trees or shrubs, which grow in tropical countries, along the borders of the sea, in places which are liable to be overflowed by the salt water, even as far as low water mark. Their branches are long, hang down towards the earth, and, when they have reached it, take root, and produce new trunks. In this manner, immense and almost impenetrable forests are formed, which are filled with vast numbers of crabs, aquatic birds, moschetoes, and also oysters, which attach themselves to the branches. The leaves are simple, opposite and entire. The seeds are remarkable for throwing out roots, which vegetate among the branches of the trees, while yet adhering to the foot-stalk. The *R. mangle* is found in Florida, nearly as far north as the 30th parallel of latitude. This genus, and an allied one, form a natural family by themselves.

Manheim; a city of Baden, capital of the circle of the Neckar, at the conflux of the Neckar with the Rhine; 34 miles N. of Carlsruhe; lon. 8° 28′ E.; lat. 49° 29′ N.; population, 21,500. In 1606, it was chosen by the elector palatine for the site of a town, being, before, a petty village, with a castle. In 1719, it became the residence of the elector of the Palatinate and his court, and so continued till 1777. In 1802, it was annexed to Baden. It contains a very large palace, is the second residence of the grand-duke, and the seat of the supreme court of appeal for the grand-duchy. Manheim presents a fine view from a distance. It is divided into four quarters, and is of an oval form. It is built with the greatest regularity; the streets are wide, straight, well paved, the houses uniform and neat, and the public buildings large and handsome; and it is one of the finest towns in Germany. It contains Lutheran, Reformed and Catholic churches, a synagogue, and three hospitals. The palace contains a gallery of paintings, cabinet of antiquities, and a library of 60,000 volumes. The observatory is a noble building, with a curious tower 108 feet high. The lyceum, or gymnasium, for the education of the upper classes, is superintended by able instructers.

Mania; a Roman spectre, the mother of the Manes, to whom, in the most ancient times, human sacrifices, particularly of children, were offered. This took place as late as the time of Tarquinius Superbus. In subsequent times, onions and poppy-heads were sacrificed instead of children. Little figures, stuffed with wool, were hung outside the house, to appease the Mania; also clews of yarn, equal in number to the slaves, to protect them.

Mania. (See *Mental Derangement.*)

Manichees, or Manichæans. Of the founder of this sect—whom the Orientals called *Mani*, the fathers of the church, *Manes*, terming likewise his adherents *Manichees*—history contains two different accounts. The older account, contained in the historians of the Christian church, seems far more credible than the Arabic version of the tenth century, which makes him an accomplished magician, a skilful painter, and a Christian priest, but says nothing particularly new respecting him. According to the first account, he became, when a boy, a slave, under the name of *Cubricus*, to a wealthy widow in Persia, at whose house he met with the four books of Scythianus, an Egyptian enthusiast, of whom nothing more is known, which had been left her by his scholar Terebinthus, or Buddas, entitled *Mysteries, Chapters, Gospel (Artzeng) and Treasury.* By the perusal of these books, he was led to his doctrine of the world and of spirits, framed from the dualistic ideas of the Chaldæans, together with the systems of the Gnostics. (See *Gnostics.*) Being left the heir of his mistress at her death, he assumed the name of *Mani*, and sought to rear, like Mohammed, on the foundation of these books, a new religious philosophy, for which he acquired disciples. The reputation of his wisdom caused him to be invited to the court of Sapor, king of Persia, where he was imprisoned, because the sick son of this king had died under his care. His scholars brought him information of the obstacles which Christianity had thrown in the way of his doctrines. The reading of the Holy Scriptures of the Christians now suggested to him the idea that he was called to the purification of Christianity from Jewish and hierarchical deformities, and to the diffusion of a mysterious doctrine, unrevealed by the apostles—nay, that he was the Comforter promised in the New Testament. Having escaped from prison, and collected new disciples at Arabion, a fortress on the frontiers of Mesopotamia, he sought, under the name of an apostle of Christ, and, according to the Arabic narrative, favored by Sapor's successor, Hormizdas (Hormuz), A. D. 272, to convert the Christians in those regions to his doctrines. While engaged in these endeavors, he is said to have been twice overcome by Archilaus, a Christian bishop at Kaskar (Charræ) in Mesopotamia, in two disputations; to have incurred again the suspicion of the Persian court, and, in the year 277, to have been executed (according to the Christian account, flayed alive), at the command of king Varacces (Vaharem). Proceeding on the ground of an eternal opposition of good and evil, mingling the philosophy of Zerduscht (Zoroaster) with his arbitrary versions of biblical doctrines, his system possesses but little in common with Christianity except the language. He assumes two principles, independent of each other; one of good—the God, without form, in the kingdom of light; and one of evil—the hyle, or devil, of colossal stature and human shape, in the darkness of matter; the former strengthened by two emanations, created in the beginning, the Son and the Spirit, and superior to the latter, both surrounded by innumerable similar æons, or elementary natures, proceeding from them, which dwell in the five elements, or spheres, that rise one over the other in the kingdom of good, viz. light, clear water, clear air, genial fire, and pure ether; and, in the kingdom of evil, darkness, or earth, troubled water, stormy air, consuming fire and smoke, from each of which proceed congenial creatures. During an internal war of the always discordant powers of darkness, the defeated party discovered, from the high mountains on the frontiers, the kingdom of light, hitherto unknown to the devil. In order to conquer it, the devil made peace with his species. The good God endeavored to subdue his enemies by means of artifice and love. The prince of darkness, having eventually been defeated in the contest, produced the first parents of the human race. The beings engendered from this original stock consist of a body formed out of the corrupt matter of the kingdom of darkness, and of two souls, one of which is sensual and lustful, and owes its existence to the evil spirit; the other, rational and immortal, a particle of the divine light, which had been carried away in the contest, by the army of darkness, and immersed into the mass of malignant matter. The earth was created by God out of this corrupt mass of matter, in order to be a dwelling for the human race, that their captive souls might, by degrees, be delivered from their corporeal prisons, and their celestial elements extracted from the gross substance in which they were involved. With this view, God produced two beings from his own substance, Christ and the Holy Ghost; for the Manichæans held a consubstantial Trinity. Christ, or the glorious Intelligence, called by the Persians *Mithras*, subsisting in and by himself, and residing in the sun, appeared in due time among the Jews, clothed with the shadowy form of a human body, to disengage the rational soul from the corrupt body, and to conquer the violence of malignant matter, and he demonstrated his divine mission by stupendous miracles. This Savior was not man: all that the New Testament relates respecting the humanity of Jesus was merely appearance, even his death and resurrection; but his sufferings are emblems of the purification by self-denial, death and new life, necessary for corrupted men. His crucifixion, in particular, is an allegory of the torments of the soul, which is fastened to matter as to a cross. When the purposes of Christ were accomplished, he returned to his throne in the sun, appointing apostles to propagate his religion, and leaving his followers the promise of the Paraclete, or Comforter, who is Mani the Persian. Those souls who believe Jesus Christ to be the Son of God, renounce the worship of the God of the Jews, who is the prince of darkness, and obey the laws delivered by Christ, and illustrated by Mani, the Comforter, are gradually purified from the contagion of matter; and, their purification being completed, after having passed through two states of trial, by water and fire, first in the moon and then in the sun, their bodies return to their original mass (for the Manichæans derided the doctrine of the resurrection of bodies), and their souls ascend to the regions of light. But the souls of those who have neglected the salutary work of purification pass, after death, into the bodies of other animals, or natures, where they remain till they have accomplished their probation. Some, however, more perverse and obstinate, are consigned to a severer course of trial, being delivered over, for a time, to the power of malignant aërial spirits, who torment them in various ways. After this, a fire shall break forth and consume the world, and the prince and powers of darkness shall return to their primitive seats of misery, in which they shall dwell for ever. Between these seats and the kingdom of light the souls of those not wholly purified keep eternal watch, that both may remain as they were from the beginning. With this system of religion, which was contained in the books of Scythianus and Mani's own treatises, letters and apocryphal writings, but, at present, exists only in the fragments found in the ancient authors, especially in St. Augustine against the Manichees, the moral system of this sect corresponds. It divides the Manichees into two classes: the *elect* are to abstain from wine, flesh, and all animal food, marriage and sexual indulgences, from music, the possession of earthly goods, and all luxury, as well as from war, labor, and doing injury to the vegetable world, and even from plucking fruits; are to kill no animals but vermin, and devote their life to pious contemplation. More was allowed the *auditors*, or more imperfect. By their labor, they had to support themselves and the elect; in marriage, must abstain from the procreation of children, and place their happiness in poverty. The head of all was Mani, with 12 disciples, among whom Thomas, Buddas and Acuas, from whom the Manichees were also called *Acuanites*, deserve mention. The Manichæan congregations were superintended by bishops, of whom Mani ordained 72; by elders and deacons, all from the class of the elect, in which there were also sainted virgins. These ecclesiastics had, however, merely the authority of teachers, the church government being democratically administered by the congregations. Temples, altars, images, victims, and other sensible aids of divine worship, were not allowed: their worship consisted of singing, prayers, the reading of their sacred books, and lecturing. The supper they celebrated without wine, and, like the primitive Christians, often delayed baptism to a mature age. Of the fasts and festivals of the Christians, they observed only that which commemorated the death of Jesus, and Sunday, the latter with strict fasting. In March, they celebrated the anniversary of the death of Mani (Bema), on which day a splendid pulpit, five steps in elevation, was erected in their simple halls of assembly for Mani, present in the spirit. They claimed the title of Christians; but, notwithstanding the reputation of extraordinary purity of morals, conceded them even by their enemies, they had to suffer, after the fourth century, more cruel persecutions than other heretics. Till this time, they had spread with great rapidity from Persia, where they had their origin, through Syria and Asia Minor, to Northern Africa, and even as far as Italy. In Northern Africa, where they had many, though not numerous congregations, with separate bishops, they were exterminated, in the fifth century, by the Vandals; in the Roman empire, especially in Italy (whither numbers of them had fled from Africa), by the persecutions of Christian emperors and episcopal excommunications. Being finally suppressed in Persia also, they took refuge, after the beginning of the sixth century, partly in the heathen regions of Eastern Asia, where they seem to have had an influence on the formation of Lamaism, partly in the obscurity of secret brotherhoods, and appeared, in subsequent centuries, under different names. The Priscillianists, Paulicians and Catharists (q. v.) had much in common with the Manichees: their name was, however, given to heretical sects and societies in the middle ages, as to the Canonici, burnt at Orleans in 1022, frequently without reason, and merely to excite the popular hatred.

Manifest is a regular list of a ship's cargo, containing the mark and number of each separate package, the names of the persons by whom the different parcels of goods are shipped, and those of the persons to whom they are consigned; a specification of the quality of the goods contained in each package, as rum, sugar, tea, coffee, &c.; and also an account of the freight that the captain is to receive from the consignee of such goods, on his arrival, corresponding with the bills of lading which he has already signed. The manifest is usually signed by the ship-broker, who clears the vessel out at the custom-house, and by the captain, and serves as a voucher for the latter, whereby to settle his account with his owners, &c.

Manifesto; a declaration publicly issued at the commencement of a war, by the contending powers, to show the causes which justify such a measure. The name is taken from the words *manifestum est*, &c. (it is manifest), the beginning of these declarations, as they were anciently written in Latin. Manifestoes are in the form of public letters: they commence with a short address to the public in general, and are signed with the name of the sovereign who issues them. Manifestoes, on the European continent, are usually written in French. They have been in use among all nations, till our own day. In France, where so many old forms have been set aside, the place of manifestoes, during the empire, was supplied by messages from the emperor to the senate, proclamations to the army, and statements in the *Moniteur*.

Manilius, Marcus; a Roman poet, who flourished, probably, in the Augustan age. The circumstances of his life are unknown. He is less remarkable as a poet than as being the Roman who, in imitation of Aratus, undertook a didactic poem on astronomy. Of this poem, we have but five books. It is entitled *Astronomica*. It is valuable chiefly as a work of science: it contains, however, a few beautiful and splendid passages, particularly in the introductions. The best editions are by Bentley (London, 1739, 4to.), Stöber (Strasburg, 1767), and Pingré (Paris, 1786, 2 vols.).

Manilla; capital of Luçon (q. v.) and of all the Spanish possessions in the Philippines; lat. 14° 36′ N.; lon. 116° 16′ E.; population, including the suburbs, about 60,000, of which 3000 are Spaniards, 7000 Metis, 4000 Chinese, and the rest natives. (See *Malays*.) Manilla is beautifully situated at the bottom of a bay, on the west side of the island, and is well fortified. The streets are wide, paved and lighted; the houses generally consist of a basement story of stone, and an upper story of wood, commonly with balconies, and windows of mother of pearl, or some other transparent substance. The principal buildings are the churches and monasteries. The chief manufactures are cigars, and a sort of transparent stuff, which the natives use for clothing. The commerce is very considerable since the port has been opened to foreigners. The chief articles of export are sugar, indigo, cotton, tobacco, rice, honey, pearls, &c.: wine, brandy, cotton, silk and woollen manufactured articles, cutlery, &c., form the principal imports. In 1818, 9 Spanish, 5 French, 10 American, 4 Portuguese, 17 English ships, and 13 Chinese junks, sailed from this port. Provisions are abundant and cheap. The environs are fertile and well cultivated. The climate is hot and damp. Manilla has repeatedly suffered from earthquakes. Those of 1645, 1796 and

1824, were very destructive. A hurricane, in 1824, unroofed most of the houses left standing. In 1762, it was taken by the English, and ransomed for a million sterling. (See *Philippines.*)

Manioc, Mandioca, or Cassava (*gatropha manihot*); a tortuous shrub, allied to the castor-oil plant, and interesting from the nutritious qualities of the roots. It is indigenous to tropical America, and is now cultivated from Florida to Magellan, and in several countries of Asia and Africa. The stem is smooth, branching, six or seven feet high; the leaves are alternate, deeply divided into from three to seven lobes, which are lanceolate, acute and entire; the flowers are disposed in loose compound racemes, and the calyx is reddish or pale-yellow; the fruit is almost globular, and is composed of three cells, each containing a shining seed about as large as those of the castor-oil plant. It is easily cultivated, grows rapidly, and produces abundantly. It is much less subject to the ravages of animals, or to the variations of the atmosphere, than most crops, and, besides, accommodates itself to almost every kind of soil. The roots attain the size of the thigh, and require at least a year to bring them to perfection; neither can they be kept in the ground for a longer period than two years. The cultivated varieties are very numerous. It is said that an acre of manioc will nourish more persons than six acres of wheat. Every part of the plant is filled with a milky juice, which is a very violent and dangerous poison, bringing on death in a few minutes when swallowed; and it may well excite surprise that human ingenuity should have converted the roots into an article of food. For this purpose the roots were formerly rasped with rough pieces of stone; but they are now ground in wooden mills, and the paste is put into sacks, which are exposed for several hours to the action of a very heavy press. By this means it is deprived of all the poisonous juice, and the residue is called *cassava*. Cassava flour, when kept free from moisture, continues good for 15 or 20 years. It is very nutritious, half a pound a day being sufficient for any one. The Creole women prefer the cassava to wheat bread, but, to a European, the taste is rather insipid. It is also the basis of several different beverages, some of which are acid, agreeable, and even nutritive. The substance called *tapioca*, which is frequently imported into Europe and the U. States, and is used for jelly, puddings, and other culinary purposes, is separated from the fibrous part of the roots by taking a small quantity of the pulp, after the juice is extracted, and working it by hand till a thick white cream appears on the surface. This, being scraped off and washed in water, gradually subsides to the bottom. After the water is poured off, the remaining moisture is dissipated by a slow fire, and the substance, being constantly stirred, gradually forms into grains about as large as those of sago. This is the purest and most wholesome part of the manioc.

Manipulation (from the Latin); work done with the hands. The word is used in pharmacy for the preparation of drugs; in chemistry, for the preparation of substances for experiments; in animal magnetism, for the motion of the hands, by which a person is magnetized. (See *Magnetism, Animal.*)

Manipulus. (See *Legion.*)

Manitou, among some tribes of the North American Indians, is the name for a magical preparation, whose virtues are somewhat like those of an amulet. A figure of an animal, a feather, a horn, a bird's beak, or some other object, is consecrated, with various charms, by the sorcerer, or doctor of the tribe or village, and worn by the individual for whom it is intended as his *manitou*, or medicine. It seems to be not unlike the *fetich* (q. v.) of most barbarous people.

Manlius, Marcus Capitolinus; a brave, ambitious and artful patrician and consul of Rome. The Gauls, under Brennus, had captured Rome (B. C. 390), and were besieging the capitol. On a dark night, they determined to surprise the citadel. They had already reached the foot of the walls; the sentinels, thinking them secure, had fallen asleep, and the enemy had already discovered a vulnerable point, when the garrison was awakened by the cackling of some geese, which were dedicated to Juno. All rushed to their arms; Manlius was the first who reached the place of danger. Two of the Gauls had gained the summit; one of them fell under his sword; and the other he thrust over with his shield. His example animated the rest. The capitol was saved, and Manlius received the surname *Capitolinus*. Having afterwards proposed a law to free the people from taxes, the senate was excited against him, and he was arrested and imprisoned as a disturber of the peace. But the people looked up to him as their greatest benefactor, and with one voice demanded his liberation. It was granted; but his restless spirit led him to new enterprises; he even aimed at the sovereignty, and the tribunes of the people became his accusers. He was condemned to death, and thrown from the Tarpeian rock (B. C. 383).

Manlius, Titus Torquatus; a Roman consul and general, son of Manlius Imperiosus. On account of a defect in his speech, his father was unwilling to carry him into the city, and kept him in the country among the slaves. This conduct appeared so unjust to the tribune Marcus Pomponius, that he summoned the father before him to answer for himself. The son, indignant that his father should be persecuted on his account, immediately hastened to the house of the tribune with a dagger in his hand, and forced him to swear that he would proceed no further. This filial piety made such an impression on the people, that they chose Manlius military tribune for the next year. He marched with the army against the Gauls; one of whom challenged the bravest Roman to single contest. Manlius accepted the challenge, conquered his adversary, and encircled his own neck with the collar (*torquis*) of the Gaul, in consequence of which he received the surname of *Torquatus*, which he transmitted to his posterity. Some years after, he was appointed dictator. He was the first Roman who ever held this office without having been consul. He was afterwards consul, and held the consulship in the Latin war (B. C. 340). Contrary to his express orders, that no Roman should engage in combat without command, out of the ranks, his son, remembering his father's victory, accepted a challenge to single contest from one of the chiefs of the enemy. He came off victorious, and laid the spoils of the enemy at his father's feet. He turned reluctantly from his son, gave him the crown of victory, and immediately ordered the lictor to execute upon him the punishment of his disobedience. This instance of severity secured to Manlius the most implicit obedience. A few days after, he defeated the enemy. In the battle, his colleague, Decius Mus, devoted his life to his country. The senate voted to him the honor of a triumph. He then retired to private life. *Manliana edicta* became a proverbial expression for commands of severe justice.

Manna. This substance, which is so frequently employed in the *materia medica*, and which forms a considerable article of commerce, exudes naturally or from incisions made in the trunk and branches of a species of ash (*ornus rotundifolia*). It first appears as a whitish juice, thickens on being exposed to the air, and, when dried, forms a whitish or reddish granular substance, which is the manna of commerce. The tree is a native of Italy, and is cultivated extensively in Sicily. June and July are the two months in which the manna is collected. It is detached from the trees with wooden knives, and is afterwards exposed to the sun for drying. A little rain, or even a thick fog, will often occasion the loss of the collections of a whole day. The taste of manna is sweet, and slightly nauseous. It is a mild purgative, and is principally administered to children. The *fraxinus virgata* also yields manna, but it cannot be obtained from any other species of *ornus*.

Manner, in the fine arts, is used in two different meanings: First, it signifies the habitual style of an artist or a school of artists. (See *Style*.) Secondly, *manner* (also *mannerism*) is used as a term of reproach, and designates those qualities of a work of art which do not proceed naturally from the subject treated, but from the individual character of the artist, or the false taste of an age. Such are the studied yet untrue performances of certain actors, the phraseology or conceptions of certain poets, the coloring or composition of certain painters, &c. The two senses of the word are not to be confounded.—A history of mannerism in the fine arts would be both interesting and instructive, a correct view of the aberrations of the human mind in any important particular furnishing a valuable warning for the future.

Mannert, Conrad, a distinguished German scholar, was born at Altdorf in 1752. He was first teacher at the St. Sebaldus-school in Nuremberg, and, in 1788, at the Ægidian gymnasium there. In 1797, he was made *professor ordinarius* of philosophy at Altdorf; in 1808, of history at Landshut; and, in 1826, of geography and statistics at Munich. His principal works are, *Geographie der Griechen und Römer* (10 vols., Nuremberg, 1788—1825; 2d edit., from vol. i to vol. iv, 1799—1820); *Compendium der Teutschen Reichs-Geschichte* (ib. 1803; 3d ed., 1819); *Statistik des Teutschen Reichs* (Bamberg, 1806); *Die älteste Geschichte Bojariens und seiner Bewohner* (Nuremberg, 1807); *Kaiser Ludwig IV oder der Baier, eine gekrönte Preisschrift* (Landshut, 1812); *Handbuch der alten Geschichte* (Berlin, 1818); *Die Geschichte Baierns* (2 vols., Leipsic, 1826); *Geschichte der alten Deutschen, besonders der Franken* (1829).

Mannus; a hero of the ancient German mythology, the son of Thuiskon, revered, like Hercules, after his death. From him comes the German word *Mann*, signifying a male endowed with power and courage.

Manoël, don Francesco, the most celebrated lyric poet of modern Portuguese literature, born at Lisbon, 1734, died at Paris, 1819. His talent was first known to foreigners, whom he attended as a *Cicerone*, after the earthquake of Lisbon in 1755. His poems are also popular among his countrymen. That on Virtue has been generally admired. His enemies, jealous of his reputation, endeavored to render his opinions suspicious, for which they found means in his expressions concerning toleration and monks, and in his translation of the *Tartuffe* of Molière. Cited before the inquisition, he disarmed (July 4, 1778) the agent of the holy office, and fled to Paris, where he ever after continued to reside. He translated Wieland's *Oberon*. His poems, under the title of *Versos de Filinto Elysio*, fill several volumes. His odes and his translation of Lafontaine's Fables are particularly esteemed.

Manœuvre, in military art; a movement given to a body of troops, according to the rules of tactics, by which it is intended to gain a decisive advantage over an enemy, or to regain advantages which the enemy has already won. A manœuvre may be executed by large or small masses, according to a preconcerted plan, or upon the sudden impulse of genius seizing upon a favorable moment: in general, it may be said, that manœuvres have become more practicable in proportion as armies have grown larger, and discipline stricter. In an ancient battle, after the combat was well kindled, the commander lost, in a great degree, the direction of his troops: in modern battles, he is enabled by manœuvres to exert a much more controlling influence, though there are still moments when he is obliged to let the battle rage. (See *Battle*.) To execute effective manœuvres in the heat of battle, requires great coolness and clear-sightedness in the commander, and thorough training in the troops. A manœuvre generally is a test of the excellence of the officers of all degrees.—One of the most important manœuvres is that of outflanking an enemy, in which the general keeps back part of his line (*refuses*), whilst the other part strives to turn the wing of the enemy, or to attack it with the assistance of a division particularly appointed to get round it, and thus to throw the enemy into confusion. The invention of this manœuvre is ascribed to Epaminondas; he owed to it his victories at Leuctra and Mantinea. Philip, Alexander, Cæsar at Pharsalia, Baner at Wittstock, Torstenson at Jankowitz, Frederic the Great at Hohenfriedberg and Leuthen, Napoleon, and other generals, owe their most brilliant successes to this manœuvre. In executing it, the attacking army always receives an oblique direction, and the attack is sometimes made *en échelon* (q. v.), as at Leuthen. The breaking through the enemy's line (see *Line*)—a chief manœuvre in naval warfare—is, in land-battles, one of the boldest and most dangerous. The retreat *en échequier* (chess-board) is one of the most advantageous, and most fitted to preserve calmness and order among the troops. The change of front during the combat is very dangerous, and rarely succeeds. The issue of a battle, where the other circumstances are nearly equal, depends upon the capacity of the troops for manœuvring: hence manœuvring in peace with large bodies is very necessary, in which the chief movements of both parties must be laid down beforehand; but the details ought to be left to the moment, so that the judgment of the officers shall be exercised. In the provinces of Prussia, large bodies of troops are annually assembled for this purpose. In 1823, from September 5 to September 20, 40,000 troops were collected for this object near Berlin. Gustavus Adolphus and Charles XII exercised their troops so well that they were allowed to be the best in Europe; but Frederic the Great conceived the whole art of war from a new point of view, and from Potsdam, where he superintended the reviews and manœuvres of his guards, and the garrison of Berlin, it may be said, proceeded the new art of war. There he perfected the movements which were afterwards introduced into the army at large; and generals from all Europe were sent to study his manœuvres. But, as so often happens with the creations of genius, the application of his plans by inferior men was attended with a pedantic minuteness of detail with which the armies of Europe were embarrassed when the wars of the French revolution took place. The genius of the French generals now reformed the art of war anew; manœuvring on a great scale was invented by them. Napoleon developed it still farther, and the rest of Europe learned it from him.

Manometer (Gr. μανος, rare, and μετρον, measure); an instrument to measure or show the alterations in the rarity or density of the air.

Manor (*manerium*, from *manere*, to remain, because the usual residence of the owner) seems to have been a piece of territory held by a lord or great personage, who occupied a part of it, as much as was necessary for the use of his own immediate family, and granted or leased the remainder to tenants for stipulated rents or services. This was the origin of *copyhold* estates, viz. those held by copy of the roll of the court of the manor. No manors, with all their incidents and franchises, have been granted in England since the reign of Edward III. One of the most important incidents to these ancient manors, was the right to hold a court, called a *court-baron*, which was held within the manor, and had jurisdiction of misdemeanors and nuisances within the manor, and disputes about property between the tenants. (See *Courts.*) Another branch of the jurisdiction, and entirely distinct from the preceding, was, the receiving of the surrender of the estate of any tenant, and admitting his grantee or successor in his place, and transacting other matters relating to the *tenure* or *tenancies*, for which purposes the court was held by the steward of the manor. The steward was also the registrar or clerk, in the other branch of the jurisdiction, for the prosecution of suits; but the freeholders of the manor were in effect the judges in these.

Mansfeld; one of the most ancient families of German counts, taking their name from the castle of Mansfeld in the former circle of Upper Saxony.—*Peter Ernst von Mansfeld* was the natural son of Peter Ernst, count of Mansfeld, governor of Luxemburg and Brussels. The archduke Ernst of Austria, godfather to the young Peter, educated him in the Catholic religion. He was of service to the king of Spain in the Netherlands, and to the emperor in Hungary, in consequence of which the emperor Rodolphus II legitimated him. But when he was denied the dignity and estates which his father had possessed in the Netherlands, and which had been promised to him, he, in 1610, embraced the Calvinistic doctrines, and, joining the Protestant princes, became one of the most formidable enemies of the house of Austria. In 1618, he led troops to the assistance of the revolted Bohemians, fought a long time for the elector Frederic of the Palatinate, devastated the territories of the spiritual princes, was several times beaten, but always contrived to make head anew. In 1625, he collected an army by the aid of English and French money, and intended to penetrate into the Austrian hereditary states. April 25, 1626, he was beaten by Wallenstein near Dessau, yet continued his march to Hungary, to join Bethlem Gabor, prince of Siebenbürgen (Transylvania); but, the latter having changed his views, Mansfeld disbanded his troops, intending to go to England by way of Venice. But not far from Zara he fell sick, and died in 1626, in his 40th year. He was buried at Spalatro. At the approach of death, he ordered his armor to be put on, and stood up, leaning on two of his aids, to await the last enemy. Mansfeld was one of the greatest generals of his time. He rose more formidable from every defeat. With great understanding, which he showed in his diplomatic transactions, he united overpowering eloquence and inexhaustible cunning. He maintained his troops by plunder, and was compared to Attila.—The Lutheran line of the house of Mansfeld became extinct in 1710; in 1780, the last male of the Catholic line died. His only daughter brought all the allodial estates of the family, by marriage, to the rich Bohemian house of Colloredo, which has ever since borne the name of *Colloredo-Mansfeld*. The former county of Mansfeld was, in 1814, added to the Prussian government of Merseburg. This county is interesting to Germans, as Eisleben and Mansfeld are situated in it. In the former Luther was born, in the latter he went to school.

Mansfield Mountain is the highest summit of the Green mountains, and the most elevated mountain in Vermont. The elevation of the north peak, called the *Chin*, above the state-house at Montpelier, is 4051 feet; above the ocean, 4279; elevation of the south peak, called the *Nose*, above the state-house, 3755; above the ocean, 3983. The mountain is situated in Mansfield and Sterling, about 25 miles from Burlington.

Mansfield, William Murray, earl of, the fourth son of David, lord Stormont, was born at Perth, in Scotland, March 2, 1705. He received his education at Westminster school, and Christ-church, Oxford. He then made the grand tour, and, on his return, became a student at Lincoln's Inn, and, after the usual term of probation, was called to the bar. He gradually made his way to eminence in his profession, and, in 1742, was appointed solicitor-general, about which time he also obtained a seat in parliament. After distinguishing himself as an advocate at Edinburgh, in 1743, and as one of the managers of the impeachment of lord Lovat, in 1747, he succeeded sir Dudley Ryder as attorney general in 1754, and as chief-justice of the king's bench in 1756; soon after which he was created baron Murray, of Mansfield. For a few months, in 1757, he held the office of chancellor of the exchequer. During that interval, he effected a coalition of parties, which led to the administration of Pitt, afterwards lord Chatham. The same year, he declined the offer of the great seal, as he did twice afterwards. A change of parties in the cabinet, in 1765, which introduced into office the marquis of Rockingham and his friends, for awhile threw lord Mansfield into the ranks of the opposition. The year 1770 was memorable for attacks on his character in a judicial capacity, in both houses of parliament, which, however, led to no serious result. On the trial of Woodfall, for publishing Junius's Letters, and on some other occasions, he showed himself the zealous supporter of government. In October, 1776, he was advanced to the dignity of an earl of Great Britain. During the riots in London, June, 1780, his house was attacked by the Anti-Catholic mob, and his valuable collection of books and manuscripts fell a sacrifice to the fury of the multitude, by whom the mansion was burnt to the ground. He continued for some years longer to exercise his judicial functions. In 1788, he resigned his office of chief-justice; and the remainder of his life was spent in retirement, principally at his seat at Caen-wood, near Hampstead. He died March 20, 1793. As a politician, lord Mansfield was a favorer of high maxims of government in general; and in the law of libel, he supported the opinion, that the jury is the judge of the fact only, and not of the law. He was, however, an enemy to violent exertion of power, as well as a friend to religious toleration. On various occasions, he opposed vexatious prosecutions, under intolerant laws, and voted in favor of the bill for the relief of the Roman Catholics. His ideas of legislation were, on many points, liberal. As an orator, he displayed more of persuasive elegance than of boldness and force; but he might fairly have contested the palm of eloquence with any of his contemporaries, except lord Chatham. In argument he was acute. Lord Ashburton used to say, that when he was wrong, the faults of his reasoning were not easily detected; and when he was right, he was irresistible. His fame rests chiefly on his conduct as a judge. He would not accept of the legal compensation to which he was entitled for the destruction of his property in 1780. There is a life of him by Holliday (4to., 1797), and by Th. Roscoe, in Lardner's Cabinet Cyclopædia.

Manslaughter. (See *Homicide.*)

Manso, John Caspar Frederic, born in the duchy of Gotha, May 26, 1759, and died June 6, 1826, in Breslau, where he had been, since 1790, pro-rector, and since 1793, rector of the Mary Magdalen gymnasium. He wrote a good deal in prose and poetry, but his most important works are, History of the Prussian State since the Peace of Hubertsburg (Frankfort on the Maine, 1819 et seq., 3 vols.), and a History of the Ostrogothic Empire in Italy (Breslau, 1824), both in German.

Mantchoos, or **Mantchews.** (See *Mandshures.*)

Mantegna, Andrew, one of the most celebrated of the early painters, was born at Padua, in 1431. His master, Squarcione, was induced by the talents which he displayed to adopt him as a son. The youth employed himself principally in drawing from antiques, and, at the age of 16, painted a picture for the grand altar in the church of St. Sophia, at Padua. Mantegna soon after entered the service of Lodovico Gonzaga, at Mantua, where he opened a school. Here he painted his great picture, the Triumph of Julius Cæsar, for the exhibition of which a palace was erected in Mantua. It consists of several pictures, which have since been transferred to Hampton court. Gonzaga conferred on him the honor of knighthood in reward for his merit. Innocent VIII invited the artist to Rome, to paint in the Belvedere, and he afterwards executed a number of capital works. One of the latest and best was the *Madonna della Victoria*, now in the Louvre at Paris, in which Giovanni Francesco Gonzaga is seen returning thanks for the victory gained by him over the forces of Charles VIII (1496). There are several other of his works in the Louvre, and an Annunciation in the Dresden gallery. He died at Mantua in 1506. Mantegna excelled in perspective, which was then a rare merit. His manner was stiff and dry, and his imitation of the ancient is everywhere manifest. His son, Francesco, was also a painter.

Mantelets, in the art of war; a kind of movable parapets, made of planks about three inches thick, nailed one over another, to the height of almost six feet, generally cased with tin, and set upon little wheels, so that in a siege they may be driven before the pioneers, and serve as blinds to shelter them from the enemy's small shot.

Mantinea; one of the most ancient, and, with Tegea, most important cities of Arcadia, on the frontier of Argolis, on the little river Ophis. The modern Tripolizza (q. v.) is built of the ruins of the ancient cities of Megalopolis, Tegea, Mantinea and Pallantium. Mantinea was known for its wealth, and famous for the battles fought near it, one B. C. 418, in the 14th year of the Peloponnesian war, the result of which battle was, that Argos seceded from Athens, and joined Sparta; the other, fought B. C. 363, by Epaminondas, against the Peloponnesians. Epaminondas (q. v.) was victorious, but fell. A third battle was fought near Mantinea, B. C. 206, between Machanides, tyrant of Lacedæmon and Philopœmen, general of the Achæan league. The latter was victorious, and slew the tyrant with his own hand.

Mantis. Few of the insect tribe have attracted more attention than these curious productions of nature, from their singular forms, and still more singular habits. From the manner in which they stretch out their fore legs, they have acquired the reputation of diviners, and because they often rest on their hind legs, folding the anterior pair over their breast, the superstitious have supposed them in the act of prayer; hence they are called, in Languedoc, where they are common, by the name of *prie-dieu*. The genus mantis has been separated, by modern entomologists, into several distinct genera, viz. *mantis*, *spectrum*, *phasma* and *phyllium*. The first of these contains the celebrated soothsayer (*M. religiosa*), which, as has been said, is vulgarly considered as possessing miraculous powers. This superstition appears to extend to almost every part of the world in which these insects are found. The Turks regard them as under the especial protection of Allah, and the Hottentots pay divine honors to them. The dry leaf mantis (*phyllium siccifolia*), in its shape and color, is remarkable, invariably suggesting the idea of a dry and withered leaf. Their manners, also, in addition to their structure, aid in the delusion. They often remain on trees, for hours, without motion; then, suddenly springing into the air, appear to be blown about like dry leaves. The Indians of South America, where these insects are very common, believe that they really are attached to the tree at first, and that when they have arrived at maturity, they loosen themselves, and crawl or fly away. In some parts of the East Indies, a species of mantis is kept, like game cocks, for the purpose of fighting, which they do with great ferocity.

Mantissa. (See *Logarithms.*)

Mantua; a delegation of Austrian Italy, in the government of Milan, lying on the north of the duchies of Modena and Parma; population, 239,436; square miles, 886. The Po passes through it, and it is also watered by the Oglio, Mincio, Secchia, &c. The surface is very level; the soil of great fertility; the principal product grain; others rice, hemp, flax, fruit and vines. The late duchy of Mantua, or the Mantuan, was of larger extent than the present province. It was annexed to the Cisalpine republic (q. v.) in 1797, and formed a department of the kingdom of Italy until 1814, when it was ceded to Austria, as a part of the Lombardo-Venetian kingdom. (See *Lombardy.*)

Mantua (Italian, *Mantova*); a city of Austrian Italy, an episcopal see, and capital of a delegation, formerly a duchy of the same name; 70 miles S. W. of Venice, 70 S. E. of Milan; lon. 10° 46′ E.; lat. 45° 9′ N.; population, 25,000, among which are about 2000 Jews. It is situated on two islands formed by the expansion of the waters of the Mincio, one about a mile square, the other a little more than half that size: on this is the most closely built part of the city. The extensive suburb of Cerese is on the main land. Mantua is well fortified, and is, by nature and art, one of the strongest places in Europe. Most of the streets are broad, regular and well paved; the houses of stone, and generally well built; and the public squares spacious and elegant. It contains a magnificent cathedral, numerous churches, convents and hospitals, a public library, an academy of arts and sciences, a gallery of antiquities, and several valuable collections of paintings. Other public objects of interest are the palaces of justice, of Gonzaga, and of T, so called from its form; the church of St. Andrew; the Corte, with its halls; the famous bust of Virgil; and the buildings of the university, which was founded here in 1625. The silk manufactures were formerly flourishing, and are still considerable; those of leather and woollen are also important. In the summer and autumn, the city is unhealthy, on account of the marshes in its neighborhood. (See *Mal' Aria.*) It is a place of great antiquity, said to be older than Rome, and, a century ago, contained about 50,000 inhabitants. Virgil was born at Andes (now *Pietola*), in the vicinity.

Manuel, Jacques Antoine, one of the most eloquent and intrepid defenders of French liberty, was born in 1775, at Barcelonette, in the department of the Lower Alps, and was educated at the college of Nîmes. He entered as a volunteer in one of the battalions of the requisition in 1793, and rose to the rank of captain. After the peace of Campo-Formio, he quitted the army, studied law, was admitted to the bar at Aix, and soon acquired a high reputation for talent. In 1815, he was elected to the chamber of deputies which was convoked by Napoleon, and after the abdication of that monarch, M. Manuel strenuously contended for the rights of the young Napoleon. He also moved a spirited protest against the force which was used by the allies to bring about the restoration of the Bourbons. This was, of course, an unpardonable crime, and an opportunity was found to display, at least, the disposition for punishing him. In 1815, he settled at Paris, and in the following year, applied for admission to the Paris bar, that he might be entitled to plead in the courts. The *council of discipline*, as it is called, consulted the members of the bar at Aix as to their opinion of his character, in the hope of finding something against him; but, though their answer was favorable, the council refused to comply with his request. This refusal was repeated in 1816. In 1818, he was elected a member of the chamber of deputies by three departments, and became one of the most formidable opponents of the ministers, speaking extemporaneously with great facility—a talent possessed by few of the French deputies. On the opening of the budget in 1819, he delivered a speech which produced a very lively sensation, and was printed by order of the chamber. "Our political organization," said he, "is at once deficient in its municipal system, which is its natural basis; in the national guard, which must be our protection in peace, our defence in war; in the jury, without which the liberty of the press is an empty shadow; and in the responsibility of officers, which is the safeguard of all rights." In the ensuing sessions, he continued, in a series of bold and eloquent speeches, to oppose the arbitrary measures which then characterized the policy of the French government. On the exclusion of Grégoire (q. v.), on the bills for suspending the liberty of person and of the press, on the laws of election, on the reform of the jury, the organization of the council of state, colonial legislation, public instruction, &c., he maintained the rights of the nation, and defended the charter in spite of the menaces, murmurs, interruptions and calumnies of the royalist faction. Calm and immovable, yet fervid and ardent, his courage and eloquence were always victorious over the violence of his enemies. During the new elections, in 1823, the greatest efforts were made to prevent his being chosen, and after the election a plan was formed for excluding him, as unworthy of a seat. This being found impracticable, his enemies determined to effect his expulsion, and a pretext was found in his first speech of the session, on the question of the Spanish war. In the outset he was called to order; the president pronounced him in order; he was again interrupted by loud cries; he was accused of defending regicide; his expulsion was demanded; he was prevented from explaining or proceeding, and the president, unable to restore order, was obliged to adjourn the chamber. The next day, Labourdonnaye moved his expulsion; Manuel defended himself, in an eloquent speech, from the charge brought against him. The motion was sustained and referred to March 3; on that day, Manuel protested against the power of the chamber to expel a representative of the nation, but his expulsion was voted by a majority. On the next day, he again took his seat, and, being required by the president to withdraw, replied that he should yield only to force. The session was then suspended for an hour, the members of the left side remaining in their seats. In this interval the *huissier* (sergeant at arms) read to him an order of the president requiring him to leave the hall; but his reply was as before, "I shall yield only to force." The *huissier* called in a detachment of the national guard, which refused to act; and a body of the *gendarmerie* was introduced. On being directed by the commanding officer to retire, he refused, and the order was issued to the *gendarmes* to arrest him. As they approached, he rose and expressed himself ready to follow them, the members present accompanying him. Manuel was again chosen to the chamber in 1824. He died in 1827, and was buried in the *Père Lachaise*, some obstacles which were interposed to the solemnization of his obsequies being surmounted by the firmness and prudence of his friends.

Manumission, among the Romans; the solemn ceremony by which a slave was emancipated. (See *Freedman.*) Constantine the Great, after his conversion, transferred to the Christian church all such solemn ceremonies of the heathen. Thus he allowed the Christian masters to emancipate their slaves before the altar on festival days, and especially at Easter, by placing the deed of emancipation on the head of the freedman in the presence of the congregation.

Manures; vegetable, animal and mineral matters, introduced into the soil, to accelerate vegetation and increase the production of crops. If the soil to be improved be too stiff, from excess of clay, it will require sand; if too loose, from excess of sand, it will be benefited by clay; but, when sand is mixed with argillaceous soil, the latter must be broken and pulverized, which may be effected by exposing it to the frost, and afterwards drying it. *Marl* is a natural compound earth, used with great success in the melioration of soils. It consists of a mixture of clay and lime, sometimes containing a little silica and bitumen. Those varieties of it which contain more clay than lime, are advantageous for a dry, sandy soil; while calcareous marl, or that in which the lime predominates, is suited to an argillaceous soil. The great advantage of marl is, that it dilates, cracks, and is reduced to powder, by exposure to moisture and air. Marl in masses would be totally useless on the ground; yet it is necessary to begin by laying it on the ground in heaps; for the more it is heaped, the more it dilates, splits, and crumbles to dust; in which state it is fit to spread upon the ground. Marl is sometimes formed into a compost with common manure, before it is laid on the soil; in this state, however, it should be applied sparingly at a time, and renewed frequently. It operates by subdividing the soil, and hastening decomposition; its calcareous particles disorganizing all animal or vegetable bodies, by resolving them into their simple elements, in which state they combine with oxygen, and facilitating this union. The best time for marling is the autumn. *Quick-lime*, and especially that derived from fossil, or living shells, is another excellent means of amending soils. It is particularly adapted to cold, marshy soils, abounding in organic matters, as it assists powerfully in the conversion of animal and vegetable substances into nourishment for plants. *Ashes* are very beneficial to the soil, by attracting moisture from the atmosphere, in consequence of the alkali they contain, and thus accelerating vegetation. *Gypsum* is, however, the most universal mineral manure; but chemists are not agreed as to the manner in which it acts on vegetation. It is strewed, in the state of fine powder, over crops, when the leaves are in full vigor towards the latter end of April, or the beginning of May. It is very extensively employed in the Northern States of this country; and is found to be particularly favorable to crops of rye and clover. *Common manure* consists of the remains of organized bodies, of every description, whether animal or vegetable, in a state of decomposition (i. e. resolving itself into those primitive elements which can reënter into the vegetable system). The principal result of this decomposition is carbonic acid, which, becoming dissolved in water, finds its entrance into the plant by the pores in the fibres of the roots, and, being every where distributed through the vegetable tissue, deposits its carbon for the growth of the plant, while its oxygen escapes into the atmosphere, through the pores of the leaves. Manure which has not completely undergone the process of fermentation, so that the straw is not yet wholly decomposed, is best adapted to strong, compact soils; the tubular remnants of straw answer the purpose of so many little props to support the earth, and afford a passage for the air, thus rendering the soil lighter; besides, the completion of the fermentation taking place after the manure is buried in the soil, has the advantage of raising the temperature. Those bodies which are subject to the most rapid decomposition, are most employed for manure. Of this description are animal manures in general, which require no chemical preparation to fit them for the soil. The great object of the farmer is to blend them with the earthy constituents, in a proper state of division, and to prevent their too rapid fermentation. In maritime districts, *fish*, when sufficiently abundant, are sometimes used to manure the land. They afford a powerful manure, and cannot be ploughed in too fresh, though the quantity should be limited. Mr. Young records an experiment, in which herrings, spread over a field, and ploughed in for wheat, produced so rank a crop, that it was entirely laid before harvest. During the putrefaction of *urine*, the greatest part of the soluble animal matter that it contains is destroyed; it should, consequently, be used as fresh as possible; but if not mixed with solid matter, it should be diluted with water, as, when pure, it contains too large a quantity of animal matter to form a proper fluid nourishment for absorption by the roots of plants. Amongst excrementitious solid substances, one of the most powerful is the *dung of birds* that feed on animal food, particularly the dung of sea-birds. The *guano*, which is used to a great extent in South America, and which is the manure that fertilizes the sterile plains of Peru, is a production of this kind. It contains a fourth part of its weight of uric acid, partly saturated with ammonia, and partly with potash; some phosphoric acid, combined with the bases, and likewise with lime; small quantities of sulphate and muriate of potash; a little fatty matter; and some quartzose sand. *Night-soil*, it is well known, is a very powerful manure, and very liable to decompose. Its disagreeable smell may be destroyed by mixing with quick-lime, after which, if exposed to the atmosphere in thin layers, in fine weather, it speedily dries, is easily pulverized, and, in this state, may be used in the same manner as rape-cake, and delivered into the furrow with the seed. The Chinese, who have more practical knowledge of the use and application of manure than any other people existing, mix their night-soil with one third of its weight of a fat marl, make it into cakes, and dry it by exposure to the sun. In this state it is free from any disagreeable smell, and forms a common article of commerce of the empire. After night-soil, *pigeons' dung* comes next in order as to fertilizing power. If the pure *dung of cattle* is to be used as manure, like the other species of dung which have been mentioned, there seems no reason why it should be made to ferment, except in the soil; or if suffered to ferment, it should be only in a very slight degree. A slight, incipient fermentation is, undoubtedly, of use in the dunghills; for, by means of it, a disposition is brought on, in the woody fibre, to decay and dissolve, when it is carried to the land, or ploughed into the soil; and woody fibre is always in great excess in the refuse of the farm. Too great a degree of fermentation is, however, very prejudicial; and it is better that there should be no fermentation at all before the manure is used, than that it should be carried too far. In cases where farm-yard dung cannot be immediately applied to crops, the destructive fermentation of it should be prevented, very carefully, by defending the surface of it, as much as possible, from the oxygen of the atmosphere; a compact marl, or a tenacious clay, offers the best protection against the air; but before the dung is covered over, or, as it were, sealed up, it should be dried as much as possible. If the dung is found to heat at any time, it should be turned over, and cooled by exposure to air. When a thermometer, plunged into it, does not rise above 100° Fahr., there is little danger of much aëriform matter flying off; if the temperature is above that point, the dung will require to be immediately spread open. Also, when a piece of paper, moistened in muriatic acid, held over the steams arising from a dunghill, gives dense white fumes, it is a certain test that the decomposition is going too far; for this indicates that volatile alkali is disengaged. The situation in which dung is kept by farmers, is often very injudicious, it frequently being exposed to the direct influence of the sun; whereas it should always be kept under sheds, or, at least, on the north side of a wall. Less perishable substances, of animal origin, are sometimes used as manure, such as *horn*, *hair*, *feathers*, and *bones*; but, owing to their dry nature, they require a longer period for their decomposition. They are not calculated for annual harvests, but to fructify the soil for a produce of much longer duration, such as that of olive-trees and of vineyards. Vegetable manure does not undergo fermentation previous to being buried in the soil. Of this kind of manure, *green crops*, such as clover, lupins and buckwheat, which are ploughed into the soil, are the best, since they contain a considerable quantity of water, and, when buried, serve to lighten the soil previous to decomposition. It is especially adapted to hot climates. *Rape-cake*, which is used with great success as a manure, contains a large quantity of mucilage, some albuminous matter, and a small quantity of oil. It should be used recent, and kept as dry as possible, before it is applied. It forms an excellent dressing for turnip crops, and is most economically applied by being thrown into the soil at the same time with the seed. *Sea-weeds*, consisting of different species of *fuci*, *algæ* and *confervæ*, are much used as a manure, on the sea-coasts of Britain, Ireland and the U. States. This manure is more transient in its effects, and does not last for more than a single crop, which is easily accounted for, from the large quantity of water, or the elements of water, which it contains. It decays without producing heat, when exposed to the atmosphere, and seems, as it were, to melt down, and dissolve away. It should be used as fresh as it can be procured, and not suffered to lie in heaps, exposed to the air, for six months or a whole year, as it is often allowed to do by the New England farmers. *Soot*, which is principally formed from the combustion of wood and pit-coal, contains, likewise, substances derived from animal matters, and is a very powerful manure. It requires no preparation, but is thrown into the ground with the seed.—The foregoing species of manure have, for the sake of convenience, been described separately, though they are very rarely employed unmixed by the farmer; on the contrary, the most common manure consists of a mixture of animal, vegetable and mineral substances, such as farm-yard litter, night-soil, mud from the streets, dust from the roads, or earth from the bottom of ponds and rivers, abounding with organic remains of fish, shells and rotten plants. Before being laid upon land, it usually requires being well turned up and exposed to the air for some time; but as soon as it is spread, it should be ploughed in, to prevent loss by evaporation. As to the depth below the surface of the ground, to which it should be deposited, it may be remarked, that this should never be below the reach of the roots of the plants it is intended to nourish; for, in proportion as it is dissolved and liquefied, it will naturally descend. And it is better to manure lands in the spring than in autumn, lest the winter rains should dissolve it too much, and endanger its sinking below the roots of the crop. With regard to the quantity of manure, it is a commodity so scarce, that it is not likely to be employed in excess. This occurs, however, sometimes in garden culture, and it produces a strong and disagreeable flavor in the vegetables. But the stock of manure is generally so limited, that it has been the study of agriculturists to discover some means of compensation for a deficiency, rather than to apprehend danger from excess. This compensation has been found in a judicious system of crops. (See *Rotation of Crops*.)

Manuscripts are a principal subject of diplomatics (q. v.). All the existing ancient manuscripts are written on parchment or on paper. The paper is sometimes Egyptian (prepared from the real papyrus shrub), sometimes cotton or silk paper (*charta bombycina*), which was invented in the East, about the year 706, and used till the introduction of linen paper, and in common with this till the middle of the fourteenth century; sometimes linen paper, the date of the invention of which, though ascribed to the first half of the thirteenth century, on the authority of a document of the year 1243, written on such paper, is, nevertheless, exceedingly doubtful. The earliest mention of pens is found in the seventh century. The most common ink is the black, which is very old: the oldest, however, was not mixed with vitriol, like ours, but generally consisted of soot, lamp-black, burnt ivory, pulverized charcoal, &c. Red ink is also found, in ancient times, in manuscripts, of a dazzling beauty. With it were written the initial letters, the first lines, and the titles, which were thence called *rubrics*, and the writer *rubricator*. More rarely, but still quite frequently, blue ink is found in ancient manuscripts; yet more rarely, green and yellow. Gold and silver were also used for writing either whole manuscripts (which, from their costliness, are great rarities), or for adorning the initial letters of books. With respect to external form, manuscripts are divided into rolls (*volumina*, the most ancient way, in which the Troubadours in France wrote their poems at a much later period), and into stitched books, or volumes (properly *codices*). Among the ancients, the writers of manuscripts were mainly freedmen or slaves (*scribæ, librarii*). Subsequently, the monks, among whom the Benedictines in particular, were bound to this employment, by the rules of their order. Manuscripts were afterwards improved and embellished by correctors and rubricators. But of much greater importance, for estimating the age, value, &c., of a manuscript, than these external circumstances and marks, are the internal, particularly the character of the writing and of the letters. It is more difficult to form a correct judgment respecting the age of Greek manuscripts from the character of the writing than it is respecting that of Latin manuscripts. In general, it is to be remarked, that, in a Greek manuscript, the strokes are lighter, easier, and more flowing, the older it is; and that they become stiffer in the progress of time. The absence or presence of the Greek accents is in no respect decisive. Moreover, few Greek manuscripts are found of an earlier date than the seventh, or, at most, the sixth century. The characters in Latin manuscripts have been classified partly according to their size (*majuscula, minuscula*), partly according to the various shapes and characters which they assumed among different nations, or in various periods (*scriptura Romana antiqua, Merovingica, Longobardica, Carolingica*, &c.; to which has been added, since the twelfth century, the *Gothic*, so called, which is an artificially pointed and angular character); and for all of those species of writing, particular rules have been established, affording the means of estimating the age of a manuscript. Before the eighth century, interpunctions rarely occur: even after the introduction of punctuation, manuscripts may be met with destitute of interpunctions, but with the words separate. Manuscripts which have no capital or other divisions, are always old. The *catch-word*, as it is termed, or the repetition of the first word of the following page at the end of the preceding, belongs to the twelfth or subsequent centuries. The fewer and easier the abbreviations of a manuscript are, the older it is. Finally, in the oldest manuscripts, the words commonly join each other without break or separation. The division of words first became general in the ninth century. The form of the Arabic ciphers, which are seldom found in manuscripts earlier than the first half of the thirteenth century, also assists in deciding the age of a manuscript. Some manuscripts have at the end a statement when, and commonly, also, by whom, they were written (*dated codices*). But this signature often denotes merely the time when the book was composed, or refers merely to a part of the manuscript, or is entirely spurious. Since we have had the evidence of the Herculanean manuscripts, we can determine with certainty that none of our manuscripts are older than the Christian era. In 1825, a fragment of the Iliad, written on papyrus, was discovered on the island of Elephantina, in Upper Egypt, by a French gentleman, travelling in the employment of Mr. Bankes. It contains from 800 to 900 verses, beginning at the 160th, and is handsomely written in capital letters, and is in a good state of preservation, unquestionably the oldest of all classical manuscripts, and probably of the times of the Ptolemies.—It was the custom, in the middle ages, wholly to obliterate and erase writings on parchment, for the purpose of writing on the materials anew. These *codices rescripti, rasi*, are thought great curiosities. This custom ceased in the fourteenth century, probably because paper came then more into use. (See *Codex*.)

Manuscripts, Illuminated; those manuscripts which are adorned with paintings illustrating the text, or in which the initial letters were decorated with flourishes or gilding. This kind of bibliographical luxury was not unknown to the ancients, and the art of illumination was much practised by the monks. Their vignettes are, in some instances, of considerable historical importance. The specimens from the period between the fifth and tenth centuries are superior to those produced during the succeeding centuries. The term *illuminated* is derived from the use of *minium*, for a red color, by the artists; hence called *miniatores*, or *illuminatores*. An example of Anglo-Saxon illumination of the eighth century is preserved in the British museum (Cottonian MSS.), which employed the skill of four distinguished theologians of the day. Eadfrid, bishop of Durham, wrote the text (the four Gospels); Ethelwold, his successor, illuminated the volume; Bilfrid, the anachoret, covered it richly with gold and silver plates and precious stones; and Aldred added glosses. Many MSS. are found with the initial letters omitted, the writer or copyist and illuminator being distinct persons. We still see traces of this practice in the ornamenting of initial letters in some printed books. (See Mabillon, *De Re diplomatica.*)

Manutius, Aldus, or Aldo Manuzio; an Italian printer of the fifteenth and sixteenth centuries, celebrated as an artist and a man of letters. He was born at Bassano, in the Roman territory, about 1447, and was educated at Rome and at Ferrara, where he learned Greek under Baptista Guarino. He became tutor to Alberto Pio, prince of Carpi; and, in 1482, quitted Ferrara, to reside with John Pico, prince of Mirandola. In 1488, he established himself as a printer at Venice, but the first work which he finished was not published till 1494. In the course of the ensuing 20 years, he printed the works of most of the ancient Latin and Greek authors extant, as well as many productions of his contemporaries, and some treatises of his own composition. Among the latter are a Latin Grammar; a Greek Grammar; a tract on the Metres of Horace, and a Greek Dictionary. He was the inventer of the italic, or cursive character, hence called *Aldine*, for the exclusive use of which, for a term of years, he obtained a patent from the pope and the senate of Venice. He established a kind of academy at his own house, and delivered lectures on classical literature, to the general study and improvement of which he greatly contributed. He died in April, 1515, leaving four children by his wife, who was the daughter of Andrea d'Asola, a Venetian, in partnership with whom he carried on his typographical labors.—*Manuzio, Paolo*, son of the foregoing, was distinguished as a classic scholar no less than as a printer. He was born at Venice, in 1512, and was brought up under the care of his maternal grandfather. He received a learned education, and, in 1533, reöpened the printing-office, which had for some time been closed, but did not carry on the establishment entirely on his own account till 1540. He opened an academy for the instruction of young persons in polite literature; and afterwards made a tour through the cities of Italy, for the purpose of examining the various libraries. After refusing several offers of professorships at Bologna and elsewhere, he was appointed to superintend the printing-office attached to a newly-founded academy at Venice, where he continued till 1561, when he settled at Rome, on the invitation of pope Pius IV. He was employed to conduct a press for printing the works of the fathers, and other ecclesiastical authors; and, at the same time, kept up his establishment at Venice, whither he returned in 1570. Pope Gregory XIII induced him, by means of a pension, to take up his abode again at Rome, where he died, in April, 1574. He was the author of Commentaries on the Writings of Cicero; a treatise *De Curia Romana;* Proverbs; Letters, &c.—*Manuzio, Aldo,* the younger, the son of the preceding, was also a printer. He was born in 1547, and was educated by his father, under whom he made an extraordinary progress in literature. In his 11th year, he produced a Collection of elegant Phrases in the Tuscan and Latin Languages; and other juvenile publications attest his classical acquirements. On his father's removal to Rome, he carried on the printing establishment at Venice, where, in 1577, he was appointed professor of belles-lettres at the school of the Venetian chancery. In 1585, he succeeded Sigonius in the chair of rhetoric at Bologna; whence he removed to Pisa, to become professor of polite literature, in 1587; and, during his stay there, he received the diploma of doctor of laws, and was admitted a member of the Florentine academy. In 1588, he went to Rome, and accepted a professorship, which had been held by Muretus. He was much favored by pope Sixtus V; and Clement VIII bestowed on him the office of superintendent of the Vatican press. He died in October, 1597, and with him expired the glory of the Aldine press; the valuable library, collected by himself and his predecessors, was sold to liquidate his debts. He was the author of many works, including Commentaries on Cicero, and Familiar Letters. (See *Aldine Editions.*)

Manzoni, Alessandro, an Italian tragic and lyric poet, of noble birth and elevated sentiments, was born in Milan, and distinguished, while young, by his *versi sciolti* on the death of Imbonati, and, at a later period, created a new kind of lyrics in his *Inni.* As a tragic writer, he surpasses any living Italian poet. His tragedies are *Il Conte di Carmagnola* (Milan, 1820), and *Adelchi* (1822). In both of them, he introduces the chorus. The subject of the first is from Italian wars of the fifteenth century, and has received great applause in Germany (from Göthe) and England, as well as in his own country. A later work is his Betrothed—*I Promessi Sposi, Storia Milanese del Secolo XVII* (1827)—which has introduced the historical romance into Italy. His *opere,* comprising his poems, tragedies, romance, and some miscellaneous prose writings, have been published (in 6 vols., 1829).

Map; a projection, on a plane surface, of the whole or a part of the spherical surface of the earth. The earth being a spheroid, its surface cannot be made to coincide rigorously with a plane; and it therefore becomes necessary to have recourse to a projection, that is, a plan on a plane surface, which indicates the relative positions, dimensions, &c., of the different parts of a spherical surface. (See *Projection.*) The three principal modes of projection are the orthographic, the stereographic and the central, distinguished by the different points of view at which the observer is supposed to be placed. In the orthographic projection, the surface of the sphere is represented by a plane, which cuts it through the middle, the eye being placed vertically at an infinite distance from the two hemispheres. In the stereographic projection, the spherical surface is represented on the plane of one of its great circles, the eye being supposed at the pole of that circle. The central projection supposes the point of view at the centre of the sphere, and the surface is thus projected on a plane tangent to it. Each of these kinds of projection is susceptible of different modifications. None of the planispheres traced by the three modes already indicated gives a perfect representation of the globe: they alter the figures of countries, either at the centre or on the borders; they present equal spaces under unequal dimensions, &c. To obviate these difficulties, the conic and cylindric projections are sometimes used; the cone and cylinder being curved sur faces, which are capable of being perfectly developed on a plane, and, at the same time, approximating to the nature of a spherical surface. These projections have also been subjected to a great variety of modifications, which we cannot here explain. Other forms of tracing maps, which have not the developement of a figure for their basis, have been recommended: such is the proportional projection, in which the principal condition is to represent, by equal spaces, regions of equal extent. (See Mayer's *Introduction to the Art of tracing Maps*, in German; Puissant's *Traité de Topographie*.) In the choice of details to be introduced into a map, the author must be guided by the purpose of his delineations, and needs to be directed by experience, learning and judgment. One map is designed to show the limits of states, the positions of towns and cities, the subdivisions of the country into provinces, departments, counties, &c; another may be devoted more particularly to delineating the natural features of the region, its mountains, rivers, &c.; and details are selected accordingly. A military map should indicate every pass, ford, obstruction, &c., which may affect a march, facilitate or obstruct a manœuvre. A nautical map, or chart, should indicate every reef, sand-bank or rock, delineating, as far as possible, not only the irregularities of the bottom, but the direction, &c., of the shores. To the seaman, the nature of the bottom of the sea is interesting only within soundings; but to the physical geographer, it is also important, as illustrative of the whole system of mountains and geological formations on the globe. There are also historical, botanical, mineralogical, &c., maps, designed to illustrate some particular point. Elementary maps for instruction are not intended to advance the science by the publication of new details, but should be adapted to convey the known truths of the science in a simple form; and, for this purpose, a numerous series of small maps is better than a few, constructed on a large scale, with minute exactness. In collecting and combining details, astronomical observations and geodesical measurements must be employed, when possible, at least for the prominent points, and, where the author is deserted by these, the accounts of intelligent travellers, of former geographers, &c., must supply the deficiencies.—Maps are engraved on tin, copper, and other metals; also, sometimes, in wood, and, of late, have been lithographed with much success for certain purposes. Soon after the invention of the art of printing, an attempt was made to print maps like musical notes, by Sweynheim; later by Bückink, in 1478; in 1777, by Breitkopf, in Leipsic. Haas, at Basil, produced pretty good specimens (see his *Carte des Partages de Pologne en* 1772, 1793 *et* 1795); and, quite recently, the same has been attempted in Boston; but the main object of cheap maps thus made, chiefly for children,—an impressive and clear survey,—seems not entirely attained. If we consider the drawing of the country ordered by Joshua (*Joshua* xlviii, 9) as a map, then the origin of geographical projection is very old. We find traces of maps with the Egyptians, in the times of Sesostris (q. v.), who caused his hereditary dominions and his conquests to be represented on tablets for his people. Scylax, Eratosthenes (270 B. C.) and Hipparchias (130 B. C.) followed him. Certain traces of maps are found in the times of Aristagoras of Miletus, and Socrates, who, by way of a reproof to the pride of Alcibiades, caused him to search for his own estates on a map. The Romans, at their triumphs, had pictures of the conquered countries carried before them, and had drawings of their territories in their archives, as Varro says. Cæsar himself took part in the surveying of different countries. There is a map extant, perhaps of the times of Diocletian, certainly not later than Theodosius, a military map, for the use of the Roman army, called the *Peutinger table*, from having belonged to a learned scholar of this name. (See *Peutinger*.) Ptolemy drew maps according to the stereographic projection. Agathodæmon, an artist of Alexandria, drew 26 maps for the geography of Ptolemy, and with him the first period of the history of maps is generally closed. They were drawn from the accounts of travellers without well settled principles. The second period, which extends to the beginning of the sixteenth century, the time of the famous Behaim (q. v.), can show metal globes, plain spheres and maps. Nicolaus Donis corrected the maps of Ptolemy, had them cut in wood, and added five new ones. Sebastian Munster followed in his steps. In the third period, maps became more and more perfect. Particular credit is due to those of Abraham Ortelius, Gerhard Mercator (born 1512, died 1594), William and John Bläu (who produced 616 maps), Sanson, Schenk, Visschen, De Witt, Hondius. After them, John Baptist Homann became famous, who consulted the most distinguished astronomers and mathematicians, and prepared 200 new maps. In regard to the character of the early maps, and early geography in general, the chapter on the progress of geographical science in Lardner's Maritime and Inland Discovery contains valuable information. The following facts are taken from that source. The most eminent geographers of the sixteenth and seventeenth centuries were men of learning, who, in the spirit of that age, adopted with zeal and obstinacy all the mistakes committed by the writers of antiquity, which thereby acquired an authority that was very difficult to be overthrown. The first requisite, in a correct system of geography, is to determine accurately the relative position of places; but, in this, the ancients were guilty of gross errors. The method which they employed to determine the latitude of places admitted of but little precision, and their determination of longitudes was still more erroneous. The countries with which the Greek and Roman writers were best acquainted were those on the Mediterranean, yet Constantinople is placed by Ptolemy two degrees north of its true position. The Arab writers increased this error to four degrees. The breadth of the Mediterranean was also increased far beyond the truth. Carthage is made 4° 32′ south of its true place. The errors in longitude were far greater, the length of the Mediterranean being made 62° instead of 41° 28′: in other words, it was made 1400 English miles longer than the reality. This enormous error continued in the maps of Europe, with little variation, till the beginning of the last century. The difference in the estimated longitude of Rome and Nuremberg, two of the best known places in Europe, varied above 500 miles, from the fifteenth to the seventeenth century. The error is still more remarkable, as existing in the longitude of places which are nearly in the same latitude. Cadiz and Ferrara, for instance, were placed nearly 600 miles too far asunder; and this error continued till the close of the seventeenth century. Errors of a wilder kind, originating in credulity rather than in inaccurate observation, found a place in the maps of the middle ages, and were slowly banished at a recent date by the improvements of astronomy and navigation. In a map of the world, published at Venice, in 1546, by Giacomo, Asia and America are united in lat. 38°. Thibet is placed at the junction of the two continents. In another Venetian map, by Tramezini, dated 1554, the distance from Quinsai, in China, to the gulf of California, in America, is only 31°, the two continents being unduly stretched some thousand miles respectively to the east and the west. The best maps were long deficient in correct distances, particularly in longitude. South America is represented by Fischer as 62°, or above 4300 miles across, while North America, on the same map, extends from the mouth of the St. Lawrence on the east, to New Albion on the west, through a space of 150°, or above 9000 miles. Hondius, in 1630, ventured, indeed, to abridge Asia of the undue dimensions given it by Ptolemy, and to reduce its extension towards the east to 165°. But his example was not followed; and many instances might be adduced, in which the authority of Ptolemy, who was but slightly acquainted with one half of the globe, was blindly submitted to in an age when Europeans wandered over its whole surface. A great step was made towards the attainment of accuracy, in regard to longitudes, when Galileo discovered, in 1610, the eclipses of Jupiter's satellites. Until, however, Cassini published his tables, in 1668, nothing accurate was known respecting their eclipses and revolutions. Cassini labored indefatigably to improve geography, by allying it strictly with astronomy, and loudly complained that it needed a total reform. Delisle, his friend, set seriously about the task of reconstructing the geographical edifice. In the year 1700, he published his map of the world, as well as separate maps of Europe, Asia and Africa, boldly departing from the examples of his predecessors, and making free use of the materials which the improvements in astronomy had placed within his reach; so that he may be considered the creator of modern geography. He died in 1726. His distinguished disciple, D'Anville, appointed geographer of the king of France at the age of 22, was remarkable for correctness of judgment and fineness of penetration. Though he proceeded much on conjecture, he rarely erred. He completed what Delisle had begun. (For further information on the subject of geography and geographical works, see *Geography*, and *Gazetteer*; see, also, *Degrees*, *Measurement of*.)—The whole number of maps which have been published may amount to from 23,000 to 24,000, of which, however, hardly 4600 are original. The first maps engraved on metal were made by Bűckink and Schweynheym, in 1478; the first cut in wood, by L. Holl, in 1482. (See Hauber's *Essay towards a circumstantial History of Maps* (in German, Ulm, 1724); Hübner's (q. v.) *Museum Geographicum.*) Among the maps prepared of late years in Great Britain, those of Arrowsmith are distinguished. Tanner, in this country, is well known for his valuable maps of the U. States.

MAPLE (*acer*); a genus of plants, peculiar to the northern and temperate parts of the globe, consisting of trees or arborescent shrubs, having opposite and more or less lobed leaves, and small flowers, which are either axillary or disposed in racemes. The fruit consists of two capsules united at base, each containing a single seed, and terminated by a wing-like membrane. In one instance, the leaves are compound and pinnated. Twenty-seven species are known, of which twelve inhabit North America, six are found in Europe, six very beautiful ones in the islands of Japan, and the remainder in different parts of Asia. The red maple (*A. rubrum*), is one of the most common and most extensively diffused of our native trees. It grows in moist situations, from lat. 49° to the gulf of Mexico, both in the Atlantic and Western States. The bright red blossoms, appearing at a time when there is no vestige of a leaf in the forest, render this tree very conspicuous at the opening of spring; and again, at the close of the season, it is not less conspicuous, from the scarlet color which the leaves assume when they have been touched by the frost. The leaves are cordate at base, unequally toothed, five-lobed, and glaucous beneath. It attains the height of 70 feet, with a diameter of three or four at the base. The wood is easily turned, and when polished acquires a silken lustre; it is hard and fine-grained, and is employed chiefly for the lower parts of Windsor chairs, sometimes for saddle trees, wooden dishes, and similar purposes. The variety called *curled maple*, from the accidental undulation of the fibres, is one of the most ornamental woods known, and bedsteads made of it exceed in richness and lustre, the finest mahogany. It is sometimes employed for inlaying, but its most constant use is for the stocks of rifles and fowling pieces. The white maple is chiefly remarkable for the beauty of its foliage, the leaves being larger and much more deeply lobed than those of the preceding, and glaucous beneath. The flowers are inconspicuous, and greenish yellow, and the fruit is larger than in any other of our species. It is not found so far south as the preceding, and is most abundant west of the mountains; its range extending beyond the sources of the Mississippi, and within the basin of the Arkansaw. It attains large dimensions, having a trunk five, and sometimes eight feet in diameter. The wood is little used, but the charcoal is preferred by hatters in some places. The sugar maple (*A. saccharinum*) is one of the most valuable of our trees. Besides the sugar which is obtained from the sap, and which might be made in quantities sufficient to supply the whole consumption of the U. States, the wood affords excellent fuel; and from the ashes are procured four fifths of the potash which forms such an important item in our exports. The sugar is superior in quality to the common brown sugar of the West Indies, and when refined, equals the finest in beauty. It is, however, little used, except in the country, and even here will probably give place, at some future time, to that manufactured from the juice of the cane. The sap of all the maples contains a certain quantity of sugar, but in none, that we know of, does it exist in so great a proportion as in this and the following species. A single tree of this species will yield five or six pounds of sugar. The leaves are smooth, and five-lobed, with the lobes sinuately dentate. It grows in cold and moist situations, between the 42d and 48th parallels of latitude, and on the Alleghanies to their south-western termination, extending westward beyond lake Superior, and is abundant in the northern parts of Pennsylvania, the western portion of New York, Upper Canada, New Brunswick, Nova Scotia, and in the northern parts of New England. The potash is exported from the two principal northern ports, New York and Boston. To the latter place the wood is brought in great quantities from Maine for fuel, and is esteemed hardly inferior to hickory. In Maine and New Hampshire, it is employed in ship-building, for the keel, and likewise in the lower frame; for the axletrees and spokes of wheels; and sometimes, in the country, for the frames of houses. A variety, with undulations, like the curled maple, and containing besides small spots, is called *bird's eye maple*, and forms exceedingly beautiful articles of furniture. The charcoal has the preference in the forges of Vermont and Maine. The black sugar maple (*A. nigrum*) is a more southern tree than the preceding, and is exceedingly abundant on the Ohio and the other great rivers of the West. It has not been observed north of latitude 44°, and does not extend into the lower parts of the more southern states. The leaves resemble, in form, those of the sugar maple, but may be distinguished by the pubescence of the inferior surface. It attains very lofty dimensions. The wood is little used, but is preferred for the frames of Windsor chairs, and furnishes the best fuel, after the hickories. The sap yields abundance of sugar, which is manufactured to a vast amount annually. The ash-leaved maple, or box elder (*A. negundo*), abounds chiefly west of the Alleghanies, where it has a very wide range, extending from lat. 53° to the gulf of Mexico, and also within the chains of the Rocky Mountains. It is easily known by its compound leaves, and becomes a large tree. The wood is fine-grained, but is little used. The striped maple, or moose-wood (*A. striatum*) is a large shrub, chiefly remarkable from the white lines on the bark, which give it an elegant appearance. It is a northern plant, and in some places the cattle are turned loose into the woods to browse on the young shoots at the beginning of spring. The wood has been sometimes employed for inlaying mahogany, but it is of inferior quality. Six other species of maple inhabit the territory of the U. States; one of them is found on the rocky Mountains, and another in the basin of the Oregon river. The wood of the common European maple is much used by turners, and on account of its lightness is frequently employed for musical instruments, particularly for violins.

Mappe-Mondes; the French term for *maps of the world*. (See *Maps*.)

Mara, Gertrude Elizabeth, daughter of a Mr. Schmähling (born, according to some, in 1750, in Cassel; others say in 1743, at Eischbach, in the territory of Eisenach; others say in 1749), was one of the greatest singers of our time. Her father, city musician in Cassel, instructed her in music. When she was seven years old, she played the violin admirably. In her 10th year, she performed before the queen, in London, whither she had accompanied her father, and where she remained two or three years. In her 14th year, she appeared as a singer at court. In 1766, she went with her father to Leipsic, and received an appointment there. Frederic the Great, though much prejudiced against German performers, was induced to invite her, in 1770, to Potsdam, his residence, showed great admiration of her powers, and gave her an appointment immediately, with 3000 Prussian dollars salary (about $2000). In 1774, she married a violoncello player named Mara, a man of careless habits, who involved her in many difficulties, and she was dismissed by the king, in 1780. In 1782, she went to Vienna and Paris, where she received the title of a first concert singer of the queen. In 1784, she went to London, where she was received with the greatest enthusiasm. For 13 evenings' performance at the Pantheon concert, she received 1000 guineas. In 1785 and 1786, she was engaged for the London opera, and appeared at one of the annual concerts in honor of Handel, as first singer, and, in the winter of 1785 and 1786, was established at the London opera. But her obstinacy offended as much as her powers delighted. In 1802, she went to Paris, and in 1803, to Germany. At a later period, she went to Petersburg, and, in 1808, she was at Moscow, where she is said to have married her companion Florio, after the death of Mara, from whom she had been separated long before. By the burning of Moscow, she lost her house and fortune; she therefore went to Reval, and gave lessons in music. In 1819, she went through Berlin to England, and, in 1821, returned to Esthonia. The latest accounts of her were, that she celebrated her birthday at Reval, February 23, 1831, having completed her 83d year, on which occasion Gőthe offered her a poetical tribute. The fame of this singer is founded not only on the strength and fullness of her tone, and the extraordinary compass of her voice, which extends from G to the triple-marked *f* (nearly three octaves), but also on the admirable ease, quickness and spirit, with which she sung the most difficult passages, and her simple and enchanting expression in the *adagio*. Her singing of Handel's airs—for instance, "I know that my Redeemer liveth"—in the Messiah, was particularly celebrated.

Maraboots; among the Berbers (q. v.) of northern Africa, a sort of saints, or sorcerers, who are held in high estimation, and who exercise, in some villages, a despotic authority. They distribute amulets, affect to work miracles, and are thought to exercise the gift of prophecy. The rich presents which they receive from a superstitious people, enable them to live with a good deal of pomp, often keeping an armed force, and maintaining a numerous train of wives and concubines. They make, indeed, no pretensions to abstinence or self-denial.

Maracaybo; a town of Colombia, capital of the department of Zulia (see *Colombia*), formerly capital of the province of Maracaybo, in Venezuela; lon. 71° 17′ W.; lat. 10° 13′ N. It is situated on the western side of the lake Maracaybo, about 20 miles from the sea. Most of the houses are covered with reeds; but the town is fortified, and the number of the inhabitants, in 1801, amounted to 22,000; which number was afterwards increased to 24,000, by an accession of refugees from St. Domingo. Here is a large parochial church, an hospital, and four convents. Large vessels cannot come up to the town, on account of the bar at the mouth of the harbor.

Maracaybo, a lake, or rather gulf, of South America, about 200 miles long, and 70 broad, running from S. to N., empties itself into the North sea; the entrance is defended by strong forts. As the tide flows into this lake, its water is somewhat brackish, notwithstanding the many rivers it receives. It abounds with fish. The lake becomes narrower towards the middle, where the town is erected.

Maranham, or **Maranhao**; a province of Brazil, between 1° 20′ and 10° 50′ S. latitude, and 45° 10′ and 53° 20′ W. longitude. It takes its name from an island situated at the mouth of three rivers, about 42 miles in circumference, which is fertile and well inhabited. The island itself is very difficult of access, by reason of the rapidity of the three rivers which form it; so that vessels must wait for proper winds and seasons to visit it. The natives have about twenty-seven hamlets called *oc*, or *tave*, each consisting of only four large huts, forming a square in the middle; but from 300 to 500 paces in length, and about 20 or 30 feet in depth; all being built of large timber, and covered from top to bottom with leaves, so that each may contain 200 or 300 inhabitants. The air is serene, seldom incommoded with storms, excessive drought, or moisture, except in the time of the periodical rains, which last from February to June. The soil of the province is very fertile, producing maize, cotton, sugar, rice, cocoa, pimento, ginger, &c. Population, 183,000, exclusive of the savages. The number of negroes is very great. The capital is Maranhao, or S. Luiz, with 12,000 inhabitants; lat. 2° 29′ S.; lon. 48° 45′ W.

Maranon. (See *Amazon.*)

Marat, Jean Paul, whose name is odiously notorious in the most hateful times of the French revolution, was born at Boudry, in Neufchatel, in 1744, and studied medicine at Paris, where he practised his profession at the beginning of the revolutionary movements. Previous to 1789, he had published several works on medical and scientific subjects, which display considerable acuteness and learning. Of a small and even diminutive stature, with the most hideous features, in which some traits of insanity were perceptible, his whole appearance was calculated to excite at once terror, pity, ridicule and disgust. The first breath of the revolution converted the industrious and obscure doctor into an audacious demagogue, if not into a ferocious maniac. He began by haranguing the populace of one of the sections, but was treated with ridicule, and hustled by the crowd, who amused themselves with treading on his toes. Still he persisted, and finally succeeded, by his violence and energy, in commanding attention. Danton (q. v.) had just instituted the club of the Cordeliers (q. v.), and collected around him all the fiercest spirits, and Marat among the number, who became the editor of the *Ami du Peuple*, a journal which was the organ of that society, and soon became the oracle of the mob. As early as August 1789, he declared it necessary to hang up 800 of the deputies, with Mirabeau (q. v.) at their head, in the garden of the Tuileries, and, though he was denounced to the constitutional assembly, and proceeded against by the municipal authority of Paris, he contrived to escape, with the assistance of Danton, Legendre and others, and by concealing himself in the most obscure corner of the city. His journal, meanwhile, continued to appear regularly, was openly hawked about the streets, and assumed a more furious and atrocious tone, as he was inflamed by the prosecutions of the authorities, and encouraged by the increasing strength of his party. During the existence of the legislative assembly, he continued his outrages, figured among the actors of the 10th of August (see *France*), and in the assassinations of September (1792). He was a member of the terrible committee of public safety, then formed, although without any official capacity, and signed the circular to the departments, recommending a similar massacre in each. Marat was chosen a member of the convention; and in spite of the contempt and abhorrence with which he was received in that body, particularly by the Girondists (q. v.), who endeavored, at first, to prevent his taking his seat, and, afterwards, to effect his expulsion, soon found encouragement to proceed with his sanguinary denunciations. The ministers, general Dumouriez (q. v.), and the Girondists, whom he contemptuously called *hommes d'état*, were the objects of his attack. Being charged, in the convention, with demanding in his Journal 270,000 heads, he openly avowed and boasted of that demand, and declared that he should call for many more if those were not yielded to him. During the long struggle of the Mountain party and the Girondists, his conduct was that of a maniac. The establishment of the revolutionary tribunal, and of the committee for arresting the suspected, was adopted on his motions. On the approach of May 31 (see *Jacobins*), as president of the Jacobin club, he signed an address instigating the people to an insurrection, and to massacre all traitors. Even the Mountain party denounced this measure, and Marat was delivered over to the revolutionary tribunal, which acquitted him; the people received him in triumph, covered him with civic wreaths, and conducted him to the hall of the convention. July 13, 1793, his bloody career was closed by assassination. (See *Corday, Charlotte.*) Proclaimed the martyr of liberty, he received the honors of an apotheosis, and his remains were placed in the Pantheon. It was not till some time after the dispersion of the Jacobins, that the busts of this monstrous divinity were broken, and his ashes removed, and then it was as a royalist that he suffered this disgrace.

Marathon; a village of Greece, in Attica, about 15 miles N. E. of Athens, celebrated by the victory gained over the Persians by Miltiades, 490 B. C. (See *Miltiades.*)

Marattas. (See *Mahrattas.*)

Maratti, Carlo, painter and engraver, born at Camerino, in the marquisate of Ancona, in 1626, while a child, amused himself with painting all sorts of figures drawn by himself on the walls of his father's house. In his 11th year, he went to Rome, studied the works of Raphael, of the Caracci, and of Guido Reni, in the school of Sacchi, and formed himself on their manner. His *Madonnas* were particularly admired. Louis XIV employed him to paint his celebrated picture of Daphne. Clement IX, whose portrait he painted, appointed him overseer of the Vatican gallery. He died at Rome in 1713. We are much indebted to him for the preservation of the works of Raphael, in the Vatican, and of the Caracci in the Farnese palace. He also erected monuments to those masters in the church *della Rotonda.* As an artist, Maratti deserves the title given him by Richardson, of the last painter of the Roman school. His design was correct, and although he was not a creative genius, he showed himself a successful imitator of his great predecessors. His composition was good, his expression pleasing, his touch judicious, and his coloring agreeable. He was acquainted with history, architecture and perspective, and used his knowledge skilfully in his pictures. The good taste which prevails in all his works is remarkable. His chief works are in Rome. He also etched successfully, among other things, the life of Mary, in 10 parts. Chiari, Berettoni and Passori were his pupils.

Maravedie, or Marvadis; a small Spanish copper coin, of about the value of three mills.

Marble, in common language, is the name applied to all sorts of polished stones, employed in the decoration of monuments and public edifices, or in the construction of private houses; but among the materials thus made use of, it is necessary to distinguish the true marbles from those stones which have no just title to such a designation. In giving a short but universal character of marble, it may be said, that it effervesces with dilute nitric acid, and is capable of being scratched with fluor, while it easily marks gypsum. These properties will separate it, at once, from the granites, porphyries and silicious pudding-stones, with which it has been confounded, on one side, and from the gypseous alabaster on the other. From the hard rocks having been formerly included under the marbles, comes the adage, "hard as marble." Marbles have been treated of, under various divisions, by different writers. The most frequent division has been that of two great sections—*primitive* marbles, which have a brilliant or shining fracture, and *secondary* marbles, or those which are possessed of a dull fracture. This classification has grown out of the idea that the former class was more anciently created—an opinion which the deductions of geology, for the most part, sufficiently confirm, though occasionally we find a marble of a compact and close texture, in old rocks, and, on the other hand, those which are highly crystalline, in very recent formations. Daubenton has founded a classification of marbles upon the colors which they present; those of a uniform color forming one class; those with two colors, another; those with three shades, a third; and so on. The best classification of these substances, however, is that of M. Brard, which divides all marbles into seven varieties or classes, viz. 1. *marbles of a uniform color*, comprehending solely those which are either white or black:

2. *variegated marbles*, or those in which the spots and veins are interlaced and disposed without regularity; occasionally, this variety embraces traces of organic remains; when these are disposed in star-like masses, they are sometimes called *madrepore marbles:* 3. *shell marbles*, or those which are, in part, made up of shells: 4. *lumachelli marbles*, or those which are, apparently, wholly formed of shells: 5. *cipolin marbles*, or those which are veined with green talc: 6. *breccia marbles*, or those which are formed of angular fragments of different marbles, united by a cement of some different color: 7. *pudding-stone marbles*, or those which are formed of reunited fragments, like the breccia marbles, only with the difference of having the pebbles rounded, in place of being angular. Before speaking of the localities of the foregoing classes of marbles, we shall allude to the ancient or *antique marbles*, by which is understood those kinds made use of by the ancients, the quarries of which are now, for the most part, exhausted or unknown.—*Parian marble*. Its color is snow-white, inclining to yellowish-white; it is fine, granular, and, when polished, has somewhat of a waxy appearance. It hardens by exposure to the air, which enables it to resist decomposition for ages. Dipœnus, Scyllis, Malas and Micciades, employed this marble, and were imitated by their successors. It receives, with accuracy, the most delicate touches of the chisel, and retains for ages, with all the softness of wax, the mild lustre even of the original polish. The finest Grecian sculpture which has been preserved to the present time, is generally of Parian marble; as the Medicean Venus, the Diana Venatrix, the colossal Minerva (called *Pallas of Velletri*), Ariadne (called *Cleopatra*), and Juno (called *Capitolina*). It is also Parian marble on which the celebrated tables at Oxford are inscribed.—*Pentelican marble*, from mount Pentelicus, near Athens, resembles, very closely, the preceding, but is more compact and finer granular. At a very early period, when the arts had attained their full splendor, in the age of Pericles, the preference was given, by the Greeks, not to the marble of Paros, but to that of mount Pentelicus, because it was whiter, and also, perhaps, because it was found in the vicinity of Athens. The Parthenon was constructed entirely of Pentelican marble. Among the statues of this marble in the royal museum at Paris, are the Torso, a Bacchus in repose, a Paris, the throne of Saturn, and the tripod of Apollo.—*Carrara marble* is of a beautiful white color, but is often traversed by gray veins, so that it is difficult to procure large blocks wholly free from them. It is not subject to turn yellow, as the Parian. This marble, which is almost the only one used by modern sculptors, was also quarried and wrought by the ancients. Its quarries are said to have been opened in the time of Julius Cæsar.—*Red antique marble* (*rosso antico* of the Italians; *Ægyptium* of the ancients). This marble, according to antiquaries, is of a deep blood-red color, here and there traversed by veins of white, and, if closely inspected, appears to be sprinkled over with minute white dots, as if it were strewed with sand. Another variety of this marble is of a very deep red, without veins, of which a specimen may be seen in the Indian Bacchus, in the royal museum of Paris.—*Green antique marble* (*verde antico* of the Italians), is an indeterminate mixture of white marble and green serpentine. It was known to the ancients under the name *marmor Spartanum*, or *Lacedæmonium.*—*African breccia marble* (*antique African breccia*). It has a black ground, in which are imbedded fragments or portions of a grayish-white, of a deep red, or of a purple wine color. This is said to be one of the most beautiful marbles hitherto found, and has a superb effect when accompanied with gilt ornaments. Its native place is not known with certainty; it is conjectured to be Africa. The pedestal of Venus leaving the bath, and a large column, both in the royal museum in Paris, are of this marble.

Marbles of the U. States. Although the U. States are known to be rich in marbles, hitherto very little pains have been taken to explore them. The quarries of Pennsylvania, which are distant about 20 miles from Philadelphia, afford a handsome veined or clouded primitive marble. Very fine specimens have been obtained from these quarries. A very similar variety is quarried, also, in Thomaston, Maine. Of black marble, resembling the Irish luculite, the quarry at Shoreham, Vermont, furnishes the chief supply consumed in the U. States. This deposit exists directly upon the borders of lake Champlain, so as to allow the blocks, which may be obtained of any size desired, to be lifted directly from the quarry into boats, for transportation. The greatest part of it, however, is carried to Middlebury, 15 miles from the lake, to be sawn and polished, before it is shipped. The town of Middlebury yields a handsome white and clouded granular marble; but the largest portion of the dove-colored marble wrought in that place, comes from the neighboring town of Pittsford. The towns of Great Barrington and Sheffield produce a very handsome dove-colored marble; that of the former place, in particular, wrought under the direction of Mr. Leavenworth, is certainly the most delicately shaded marble of its kind in the U. States. The annual product of his establishment amounts to about $10,000 per annum. The white marbles of Connecticut and New York are highly granular, and, in general, are too slightly coherent in the aggregation of their particles, to be employed in constructions which are exposed to the weather; besides, they are often contaminated with crystals and fibres of tremolite. The *verd antique* of New Haven is the rarest and most beautiful marble yet discovered in the U. States. It consists of an intermixture of white marble and green serpentine, though its most beautiful stains of green and yellowish-green, come directly from the oxides of chrome and iron, which are everywhere disseminated through it. While the quarries were open, it was much used for the construction of chimney-pieces, as well as for slabs for tables and sideboards, and other articles of in-door ornamental furniture. It was also employed, but with very bad taste, and still worse judgment, for sepulchral monuments; since its gay colors were ill suited to so grave an application, and its metallic ingredients, from the action of the weather, soon caused it to part with its polish and become dull. The quarries, though judged inexhaustible, have long since been abandoned, from the expensiveness with which they are wrought, and the very limited demand which exists in this country for articles of mere decoration. Variegated and shell marbles exist, in considerable quantities, in the Western States; and a very handsome puddingstone marble is found in Maryland, at the foot of the Blue Ridge, on the banks of the Potomac, 50 or 60 miles above Washington; its colors are very various and striking, and it has been largely made use of in the construction of the columns in the interior of the capitol at Washington.

Marblehead; a post-town of Essex county, Massachusetts, situated on a peninsula extending more than three miles into Massachusetts bay, and varying in breadth from one to two miles. It is four and a half miles south-east of Salem, and 16 north-east of Boston. Lat. 42° 32′ N.; lon. 70° 51′ W.: population in 1810, 5800; in 1820, 5630; in 1830, 5150. The town is compactly built, but the streets are crooked and irregular. It contains five houses for public worship, and a custom-house; a printing-office issues a weekly newspaper. The harbor, a mile long and half a mile wide, is very safe, except from north-east storms. Marblehead was settled very soon after Salem, by a number of fishermen, and the inhabitants have been principally devoted to the Bank fisheries. In this business, it has greatly excelled all the other towns in America. Previous to the revolution, it was very flourishing; it paid a larger tax, and was supposed to have more inhabitants, than any town in the state, except Boston. It suffered very severely by the war of the revolution, and again by the last war. At the close of the war in 1814, no less than 500 of its sons were in foreign prisons. The situation of Marblehead is such, that the people of the vicinity never travel through it to arrive at any other town. Thus secluded, the inhabitants have acquired a distinctive character, and a peculiar dialect. The harbor is defended by fort Sewall, which stands on a point of land near the entrance, and is one of the best forts in the country. It has two 24-pounders, and ten 18-pounders. The barracks are bomb-proof, and can accommodate a garrison of about 60 or 70 men.

Marbod, or **Maroboduus**. (See *Marcomanni*, and *Arminius*.)

Marbois, François, marquis of Barbé-Marbois, a French minister and diplomatist, was born at Metz in 1745, where his father was director of the mint. After finishing his education, the young Marbois became tutor to the children of De Castries, minister of marine, through whose good offices he obtained a post in the French legation to the U. States, during our revolution. De la Luzerne (q. v.) was then the French minister in this country, but Marbois was the principal agent in the most important operations of the embassy. On the return of that minister to France (1784) M. Marbois continued in the country as *chargé d'affaires*. He was afterwards appointed *intendant* (governor) of St. Domingo, and having returned to France in 1791, was immediately sent by Louis, as his ambassador to the German diet. Marbois had hitherto taken no part in the revolutionary events, but in 1795 was chosen a member of the council of elders, and in the struggle between the directory and the councils, having defended the latter, he was, with a number of his colleagues, condemned to deportation to Cayenne. After remaining two years and a half in exile, he received permission to return, and was nominated by the first consul counsellor of state, and, in 1801, secretary of the treasury, which was erected into a ministry. In consequence of some unsuccessful operations, he was removed in 1806, but was made grand-officer of the legion of honor and count of the empire. In 1808, he was made president of the *cour des comptes*, and was now a declared admirer of the emperor. In 1813, his expressions of devotion to the imperial government had introduced him into the senate, and in the next year, his name was found among the first to vote for the deposal of Napoleon. Louis XVIII created him peer of France, and confirmed him in the presidency of the *cour des comptes*. During the hundred days, Napoleon refused to see a man whom he accused of ingratitude. In 1815, the second restoration conferred on him the dignity of keeper of the seals. Although M. Barbé-Marbois defended the erection of the *prevotal* courts, he was not willing to go the whole length of the ultra-royalism of the period, and, in 1816, was obliged to surrender his port-folio, and was, soon after, created marquis. Since this period, he has taken a liberal stand in politics. Among his works, besides some agricultural essays, and some productions in polite literature, we may mention his *Essai sur les Finances de St.-Dominique*; *Essai de Morale*; *Complot d'Arnold* (Account of Arnold's Conspiracy, 1816); *Histoire de la Louisiane et de la Cession de cette Colonie* (1829), a translation of which has been published in the U. States.

Marburg; capital of Upper-Hesse, in Hesse-Cassel, situated on the Lahn, with a population of 6700 inhabitants, a castle, and a university. It is built on the declivity of a hill, on the summit of which is the castle. It has five Catholic, Lutheran and Calvinist churches. The university was founded in 1527, and has an excellent library of over 100,000 volumes, a valuable botanical garden, an anatomical theatre, and other institutions connected with it. In 1829, the number of students was 347. It is remarkable as being the first Protestant university founded in Germany.

Marcellinus Ammianus. (See *Ammianus Marcellinus.*)

Marcello, Benedetto; a noble Venetian, youngest son of the senator Agostino Marcello. He was born in 1686; and, while a youth, became a great proficient in the science of music, in consequence, it is said, of a reflection thrown upon his deficiency in that respect, at a concert given by his brother Alessandro, which hurt his pride, and stimulated him to exertion. He afterwards studied under Gasparini, and, receiving a liberal education, distinguished himself as a poet, as well as a musician. In 1716, a *serenata* of his composition was performed at the celebration of the birth of the first son of the emperor Charles VI, and excited great applause. Eight years after appeared the first four volumes of his adaptation to music of Giustiniani's Paraphrase of the Psalms, which he afterwards completed in eight more, the whole being published in 1726. Garth, of Durham, has adapted suitable words, from the English translation of the Psalms, to Marcello's music, with a view to their being performed as anthems in the cathedrals, with great success. This elaborate work was printed by subscription, in eight folio volumes. Marcello was successively a member of the council of forty, *provveditore* of Pola, and chamberlain of Brescia, in which city he died in 1739.

Marcellus, M. Claudius; the first Roman general who successfully encountered Hannibal, in the second Punic war. During his consulship (B. C. 223) he had given the greatest proofs of his valor, in a single combat with Viridomarus, a Gallic chief, whom he slew; the Gauls, discouraged by the loss of their leader, fled before an inferior Roman force. The result of this victory was the complete conquest of Upper Italy. Marcellus received the honor of a triumph, as the decree of the senate expressed it, for his victory over the Insubri and Germans. This is the first time that the Germans are mentioned in the Roman history, and the last mention we have of a personal contest between generals. Soon after this, the second Punic war broke out, and, after the fatal battle of Cannæ, he was sent against Hannibal; and, as prætor, took the command of the troops remaining at Canusium, in the room of Terentius Varro. On receiving information of Hannibal's march to Nola, he hastened to anticipate him, threw himself into the city, and forced the Carthaginians to retreat, with a loss. Hannibal made a second attack upon Nola, and, as the place was untenable, Marcellus resolved to risk a general engagement on the open plain. His army was inferior in point of numbers, but had the advantage of longer spears. After a hard-fought battle, Hannibal was driven to his camp.

Marcellus was now chosen consul, with the celebrated Fabius Maximus Cunctator for his colleague. He frustrated a third attempt of Hannibal to regain the city of Nola, and again offered him battle, which the latter declined. His activity was interrupted for a time by disease. He afterwards went to his province of Sicily, where the siege of Syracuse was his most remarkable achievement. After having used every means (B. C. 214) to capture by force that city, which was defended by the mechanical ingenuity of Archimedes, he limited himself to a blockade, and frustrated all the efforts of the Carthaginians to relieve it, and succeeded, partly by artifice, and partly by force, in making himself master of the place (B. C. 212). The city was surrendered unconditionally, and he was unable to save it from pillage, but he gave orders that no Syracusan should be put to death. Many of the inhabitants, however, and among them Archimedes, were killed in the heat of victory. Marcellus was filled with regret on account of the death of Archimedes, granted many privileges to his connexions, and caused him to be buried with much pomp. After having reduced the greater part of the island, and gained a complete victory over the Carthaginians, he returned to Rome, and received the honor of an ovation. He was again made consul (B. C. 211), with M. Valerius Lavinius, and again received the command in Sicily. But the Syracusans sent ambassadors to Rome to complain of his cruelty, and pray for another general. Marcellus was acquitted, but he voluntarily exchanged provinces and remained in Italy. The Syracusans afterwards repented of their conduct, and entreated his forgiveness. He pardoned them, and procured them the restoration of their former privileges, and the honor of being considered as allies of Rome. As a mark of gratitude, they declared themselves the clients of the Marcellian family. In the mean time, Marcellus carried on the war against Hannibal in Italy, and fought an undecisive battle at Numistrum. In the succeeding year, he was defeated by Hannibal at Canusium; but, having rallied the fugitives, and inspired them with fresh courage, he renewed the contest on the following day, and gained the victory, though with a heavy loss. B. C. 209, he was chosen consul the fifth time, with T. Quintius Crispinus. The two consuls united their forces on the Liris, but Hannibal avoided giving battle. The Romans, preparing to encamp upon a neighboring hill, were suddenly surrounded; they would, however, have been able to cut their way through, had not the Etrurians, who composed the largest part of the cavalry, immediately surrendered. Marcellus himself fell; his son and the other consul escaped. Thus died this great general, who made himself formidable to Hannibal himself. He was called the *sword*, as Fabius was the *shield*, of Rome. Hannibal took the ring from his finger, and caused the body to be burnt with the most distinguished honors, and sent the ashes to his son, in a costly urn. His family continued to flourish, and furnished many consuls, until it became extinct with the son of Octavia, the sister of Augustus, whom Virgil has immortalized.

March (Latin *Mars*); originally the first month of the Roman year; so named, according to tradition, by Romulus in honor of his father, Mars. Till the adoption of the new style in England (1752), the 25th of March was new year's day; hence January, February, and the first 24 days of March have frequently two years appended, as January 1, $170\frac{1}{2}$, or 1701–2. (See *Calendar.*)

March; a movement by regular steps in the manner of soldiers; also a journey performed by a body of soldiers either on foot or on horseback. Soldiers on a march are subject to certain rules very necessary to keep them in good order, and fit to meet the enemy. The march in the first sense of regular step differs on different occasions. In the parade-march, from 75 to 95 steps, differing in different armies, are made in a minute; in the quick-march, from 108 to 115 steps; and in the storming-march, 120 steps, in the Prussian army.—*March* further signifies the music composed for such movements; it is composed in $\frac{4}{4}$ or $\frac{2}{4}$ time for the parade-march, and in $\frac{6}{8}$ for quick-time. There are many sorts of such marches for festivals, funerals, &c., varying according to their different purposes.

Marche; one of the ancient provinces of France, bounded north by Berry and the Bourbonnais, east by Auvergne, and south by Guienne and Limousin. Its name is derived from its having been on the frontier of these provinces, and it was often called *Marche du Limousin.* In the middle ages, it had, for some time, its own sovereign counts. Philippe le Bel acquired it by confiscation. It afterwards belonged to the house of Armagnac, and that of Bourbon-Montpensier. Francis finally united it with the crown domains. (See *Department.*)

Marches (from the Middle Latin, *mar-*

ca, marcha, a boundary); the frontiers of a state. Thus in English history, we read of the lords of the Welsh marches, that is, of the frontiers of England and Wales; the marches of Scotland were divided into west and middle marches. The office of the lords marchers was originally to guard the frontiers. (See *Marquess.*) The corresponding word in French is *marche* (see *Marche*), in German *mark,* in Italian *marca.* In the estates of the church was a province called *Marca,* divided into the march or marquisate of Ancona and that of Fermo. In the Venetian territory was the *Marca Trevisana.* In Germany, the mark of Brandenburg (q. v.) or the electoral mark (Kurmark), was divided into the Mittelmark, Neumark, Altmark, Vormark and Ukermark. So Steiermark (marquisate of Stiria), Dănemark (Denmark). (See *Margrave.*)

Marchesi, Luigi, called also *Marchesini,* a celebrated singer, born at Milan about 1755. While a youth, having attracted the attention of some *cognoscenti,* he was encouraged by them to quit his father's house privately, went to Bergamo, and there subjected himself to the necessary mutilation. After completing his studies in Munich (1775—77), he returned to his native country, where he was received with the greatest admiration and enthusiasm. The academy at Pisa caused a medal to be struck in his honor; he afterwards sung in Rome, Vienna, Petersburg, Berlin, and in 1788 went to London, where the directors of the Italian opera gave him £1500 for one winter, with a benefit and his expenses. Marchesi was not less remarkable for the beauty of his person and his grace and propriety of gesture, than for his voice. He sang in Vienna in 1801. The time of his death is unknown.

Marchfeld; the Austrian circle under the Mannhartzberg, in the country below the *Ens* (as it is called); particularly the fertile plain from Bockfliess to the rivers March and Danube, about 23 English miles long and 14 wide—a spot, the position of which has made it at several epochs the field of decisive battles, and which is therefore of great interest for the military student. Ottocar of Bohemia, defeated here, in 1260, Bela IV of Hungary, and conquered Stiria, which has since remained united to Germany. In another battle, fought here August 26, 1278, between Ottocar and Rodolph of Hapsburg, Ottocar fell. This day laid the foundation of the house of Hapsburg, which is still seated on the throne of Austria. The third battle on this bloody plain was that of Aspern (q. v.) May 21 and 22, 1809; and the fourth, the battle of Wagram (q. v.), July 5 and 6, 1809.

Marcion, Marcionites. (See *Gnostics.*)

Marcomanni, Markomanni, i. e. borderers (see *Marches*); a powerful league of ancient German nations. After Cæsar's death, they lived between the Danube and the Rhine. After the Romans had conquered Noricum and Pannonia, and had become dangerous to the Marcomanni from their proximity, the latter retired, and, under their king, Maroboduus, made themselves masters of the kingdom of the Boïi in the present Bohemia, called by the Germans *Bojenheim.* By artifice and violence, Maroboduus soon formed a union of a number of tribes under his sovereignty, and became dangerous to the Romans, as this league could bring 70,000 disciplined troops into the field. The Romans were prevented from attacking him by an insurrection of the Pannonians; for which reason Tiberius concluded a treaty with him, six years after Christ; but he was defeated by the Cherusci under Hermann (Arminius), (A. D. 19). The same was the fate of his successor, the Goth, Catualda. Both fled to the Romans, who assigned them Ravenna and Aquileia for a residence. Relations of Maroboduus now governed the Marcomanni, who avoided all hostilities against the Romans till the time of Domitian. They subsequently made incursions into the Roman territory. Trajan and Hadrian held them in check. They invaded Pannonia (A. D. 166). After a long conflict, which is celebrated in Roman history under the name of the *Marcomannic war,* Antoninus the Philosopher (q. v.) drove them back beyond the Danube. Commodus purchased peace in 180, which they observed, however, only so long as they were paid tribute, or Rome had a resolute ruler. They devastated Noricum and Rhætia, and even advanced through the passes of the Alps. Under Aurelian, in 270, they filled all Italy with consternation. But in the fifth century, the name of Marcomanni disappeared. The general migration of the nations consigned the names of the ancient tribes to oblivion. After the overthrow of the dominion of the Huns, the Rugii, Heruli, Scyri, Turcelingi made their appearance in the countries of the former Marcomanni. A powerful nation, the Baioarii, we find in the mountains of Noricum and Rhætia, which Mannert assigns strong reasons for regarding as the same with the Marcomanni, who had emigrated hither, being driven from their residences by the Rugii, Longobardi, &c. The Baioarii are the progenitors of the Bavarians. (q. v.)

Marco Polo. (See *Polo.*)

Marculphus; a monk, known in the history of the feudal law, for his work, entitled the Formulary, consisting of a collection of *formularia* or forms of forensic proceedings and legal instruments, including charters, &c. of the kings of France. He lived about the middle of the seventh century. Jerome Bignon published the formulary of Marculphus, with learned annotations, in 1613, reprinted in 1666; but the most complete edition is that of Baluze, in the second volume of his Capitularies (1677).

Marcus Aurelius. (See *Antoninus.*)

Mardi Gras (Fat Tuesday) is the French name for Shrove Tuesday, because it was formerly, and, in many cases, is still, customary to make this a day of feasting and merriment, by way of preparation for the 40 days' fast of Lent, which immediately follows.

Maremme; tracts of country in Middle Italy, partly in the States of the Church, partly in Tuscany, in the region of Sienna, on the Tuscan sea, and on the western declivity of the Apennines, and partly also in Naples. These tracts, by reason of the unhealthy exhalations of a soil abounding in sulphur and alum, cannot be inhabited in summer without danger. This unhealthiness has been especially observed since the 15th century, and has already begun to advance to the Arno, this side of the Volterra, although Volterra rises 3600 feet above the level of the sea. The population of a region, which has thus become unhealthy, must emigrate, or be swept away by fever, and this *mal' aria* already prevails in different streets of Rome, which it will, perhaps, one day render uninhabitable. Whenever, from a diminution of culture, the vegetation consumes less of the mephitic air, the evil becomes worse. On the other hand, the Maremme afford, in winter, a luxuriant pasturage for cattle, which graze, in summer, on the Apennines, and, in this season, man himself experiences no difficulty in dwelling there in houses, or in the open air. In the Roman Maremme, which, the former small proprietors having been bought out, have become, for miles, the depopulated possessions of a few princes, a small part of the land is used in years of scarcity, for the cultivation of wheat. The earth is ploughed in autumn; hired laborers, from far and near, take care of the harvest, and, on the field, thresh out the grain, which is then deposited in the great magazines of the estates, whence it is conveyed to Rome or to Ostia, for further transportation. These laborers are so careless, that they sleep under the few trees, or in the open air, and if they are attacked with the fever, after some heavy dews at night, the steward of the estate gives them their dearly earned wages and a loaf, with which they return to their mountains, unless previously overtaken by death. The more salubrious atmosphere of their mountains often restores them but slowly. From the oppressive poverty of the Italian mountaineers (of those, at least, who do not carry on robbery for a livelihood), there is never any want of men and women, who come down during the harvest, in the face of death, to collect a few scudi, to pay their rents, and for bread. The younger these laborers are, the more liable are they to the deadly fever. The insalubrity, moreover, betrays itself neither by mist nor by an offensive atmosphere; on the contrary, the air seems very pure, and the horizon of a clear blue. In part of Tuscany, exertions have been made to improve the corrupted air in these pestilent regions, by planting trees; by this expedient, the evil has been lessened in a degree, but by no means entirely removed, as is proved, for example, by the environs of the Lago di Bolsena (lake of Volsinü), which have much wood, but suffer from the *mal' aria.* There were meadows at Antium, which were in ill report for their unhealthiness, even in the times of the Romans. At present, these same meadows, provided the open air at night is avoided, are perfectly healthy. 2000, and even 1500 years ago, the whole Campagna di Roma was very densely inhabited, and a garden; and probably for that very reason, the country was as healthy as it now is the contrary. Since the period of the migrations of the nations, husbandry on a small scale, and the use of the spade, which Cato Major esteemed so highly, have disappeared; and the more the property in the Campagna di Roma became accumulated in the possession of religious corporations and in entailed estates, the more unhealthy became the ancient territory of the Romans. According to Lullien de Chateauvieux, the smell and vapors betray, every where in the Maremme, the presence of sulphureous springs, which form permanent quagmires. But this *mal' aria* cannot proceed exclusively from the waters of the marshes, or the nakedness of the land, for it is equally dangerous on the mountains and in the depths of the forest. The evil probably has its origin in the chemical properties of the soil developed by some latent operation of nature. Unless some means of remedying the unhealthy air be discovered, or some new volcano shall effect the purification of the atmosphere by eruptions, it is highly probable that Middle Italy, south of the Alps, may become, after the lapse of centuries, a desert, used in winter for the pasturage of cattle, and totally uninhabitable in summer. The Pontine (q. v.) and other marshes do not belong to the Maremme. These are a consequence of the imperfect draining of the lowlands, between the coasts of the sea and the foot of the Apennines. A grand canal along the foot of this chain of mountains, should receive all its waters, and, as its bed would be higher than the level of the Mediterranean, where the former mouths of the rivers have been filled with sand, and have thereby become choked, should carry them, by many broad and deep canals, frequently cleared out, into the sea. And if the lowlands, which it is impossible to drain thoroughly, were planted with thickly-leaved trees, and many small villages were settled there, these swamps would soon become healthy.

Marengo; a village in the plains between Alexandria and Tortona, in the royal Sardinian duchy of Montferrat, celebrated for the battle of June 14, 1800. Bonaparte had passed the Alps, between the 16th and 27th of May, with 60,000 men. Melas, the Austrian general, discovered his danger too late. June 2, Bonaparte had obtained possession of the fortress of Bardo, which commanded the entrance of the valley of Aosta; Murat advanced on Milan, Suchet took Nice, and Berthier defeated at Montebello the lieutenant field-marshal Von Ott. June 13, Desaix arrived from Egypt, at the head-quarters of Bonaparte; the main body of the army was concentrated at Marengo: Desaix commanded the consular guard. On the 14th, the battle was fought, in which Desaix was killed, and the Austrian army, under Melas, was driven beyond the Bormida, with a loss of 1200 killed, and 7000 taken prisoners.—About noon, on the day of battle, the French columns, under Lannes and Victor, destitute of ammunition, and reduced to half their number, were compelled to retreat. They retired under cover of Kellermann's brigade of cavalry. The slow advance of the Austrians, and the false direction of their numerous cavalry, gave the remains of the French army time to rally behind the corps of Desaix, which the first consul had already ordered to Novi, to cut off the enemy's retreat to Genoa, but which was now recalled in haste. Desaix had taken his position at St. Giuliano, on the left side of the road from Tortona to Alexandria, when Kellermann arrived with his brigade of cavalry, having received from the adjutant Savary the command to support the attack of this general. Thus the battle was renewed. Kellermann had only 400 horse, and those fatigued by an eight hours' contest. The infantry of Desaix was about 3000 or 4000 strong. The enemy was certain of victory. Desaix was mortally wounded at the first attack, and his little corps, unable to resist, retreated. Behind the vineyards which covered him, Kellermann saw 6000 Hungarian grenadiers break their ranks in pursuit of the French. He threw himself into the midst of the enemy, who, terrified by this unexpected attack, cut off from their cavalry, and thinking themselves surrounded, threw down their arms before the little band. The Austrian main body supposed that the enemy had received a powerful reinforcement, and fell back, in haste and disorder, to Bormida. Thus Kellermann decided the victory. This defeat led to the armistice of Alexandria, between Bonaparte and Melas, according to the terms of which the Austrians evacuated, within 14 days, the citadels of Alexandria, Tortona, Milan, Turin, Pizzighitone, Arona and Piacenza, with the fortified places of Genoa, Coni, Ceva, Savona and Urbino, and retired beyond Piacenza, between the Po and the Mincio.

Maret, Hugh Bernard, duke of Bassano, was born at Dijon, in 1758, and, after finishing his course of legal studies, went to Paris, with the intention of purchasing a post, when the meeting of the states-general gave a new turn to his views. Having established a journal called the *Bulletin de l'Assemblée*, in which the debates were very accurately reported, his success induced Panckouke to engage him to report for the *Moniteur* (q. v.), which the former then undertook to publish. In a small house, in the street St. Thomas du Louvre, where the office of the paper was kept, he became acquainted with lieutenant Bonaparte. Until 1791, Maret was a member of the Jacobin club, but after the events on the Champs-de-Mars (July 17 of that year), he left it, and became one of the founders of the club of Feuillans, or constitutional monarchists. In 1792, he was sent to London, to negotiate with the English ministry, but without success. Lord Grenville sent back his despatches unopened, and ordered him to quit the kingdom within three days. He was next sent on a mission to Italy; the whole legation was, however, seized by the Austrians on neutral territory, and thrown into prison at Mantua, whence they were transported into Tyrol, and released after a confinement of two years and a half. During his imprisonment, and for several years after his release, Maret was actively occupied with literary studies, and did not again act an important part in public affairs until after the 18th Brumaire (see *France*), when he was named secretary of state, with the dignity of minister. From this time, he was high in favor with the first consul and the emperor, who reposed the most unbounded confidence in his integrity, prudence and judgment. In 1805, the grand eagle of the legion of honor was conferred on him, and, during several succeeding years, his services were required in Austria, Poland and Prussia. In 1809, he was created duke of Bassano, and, in 1811, minister of foreign affairs. In the Russian war of 1812—13, he also followed the emperor, and, on the disasters in Russia, returned to Paris, when he demanded a new levy of 350,000 men. The portfolio of foreign affairs was withdrawn from him, and given to Caulaincourt, in 1814, Maret being, nevertheless, employed in important negotiations with the ministers at Châtillon. On the fall of Napoleon, the duke continued attached to him to the last, and on the emperor's return, again received his former post of secretary of state, and was created peer of France. After the second restoration, he was banished, but permitted to return in 1820.

Marforio; a colossal statue, representing the river Rhine, in a lying posture, and standing in the court of a wing of the Capitol (q. v.) at Rome. The name *Marforio* is said to be a corruption of that of the *Mamertine* prison or of the temple of *Mars*, which were near the spot where this statue originally stood, on the *forum Romanum*. The Marforio is famous for having served, like the *Pasquino* (q. v.), as the place where the Roman satirists placed their sallies.

Margaret, queen of Denmark, Norway and Sweden, very justly called the *northern Semiramis*, the daughter of Waldemar III, king of Denmark, was born at Copenhagen, in 1353, and married to Haquin or Hacon, king of Norway, in 1363. The talents, firmness and beauty of the princess rendered her popular among her countrymen, and, on the death of her father, she succeeded in placing her son Olaus on the throne of Denmark. The death of her husband in 1380, put the government of Norway in her hands, and the plan of uniting the three kingdoms, which was favored by the imbecility of the Swedish monarch, seems now to have occupied the mind of this princess. Olaus died in 1387, and Margaret, by her address, caused herself to be declared queen. Taking advantage of the domestic dissensions in Sweden, and flattering the nobles with the prospect of greater power, she raised a party in that country who recognised her as queen; and having defeated the troops of Albert, the Swedish king, at Falkœping, she soon obtained possession of the throne. Looking forward to a permanent union of the three crowns, she endeavored to effect her purpose by the celebrated act of union, or treaty of Calmar (1397). She restored tranquillity at home, and was successful against the foreign enemies of her kingdom, but her peace was disturbed by the ingratitude of Eric, whom she had nominated her successor. She died in 1412, after having, by her prudence, energy, address and foresight, raised herself to a degree of power and grandeur, then unequalled in Europe from the time of Charlemagne. (See *Norway*, *Sweden*, and *Denmark*.)

Margaret of Anjou, daughter of Regnier, or René the Good, titular king of Sicily, was married in 1443, to the imbecile Henry VI (q. v.) of England. By the marriage articles, Maine was given up to her uncle Charles of Anjou, and this cession facilitated the conquest of Normandy by the French. The loss of this important province was attributed to Margaret, and the house of commons accused Suffolk, the author of her marriage and the favorite minister of the queen, of high treason. He was banished the kingdom. Soon after the sentence, and without having quitted the country, he was murdered. In the war of the roses, which soon began to desolate England, Margaret played a conspicuous and important part. The bold, active, and even fierce temper of this princess, contrasted singularly with the feeble character of her husband. She was for a long time the life of the Lancastrian party. She defeated the duke of York, and, placing a paper crown on his head, exposed him at the gates of the city of York. In 1461, the princess defeated Warwick, at St. Alban's, and her victories were always stained with numerous executions. The son of the late duke of York, the gallant young Edward, soon appeared at the head of the Yorkists, who now became victorious. Margaret's army was annihilated at Towton, and Edward was declared king. (See *Edward IV.*) The unhappy queen succeeded in obtaining assistance from Louis XI of France, but was again defeated, and compelled to flee. After concealing herself in the wildest parts of the country, where she was often compelled to suffer the greatest privations, and even endured the greatest indignities from the lawless bands, with which the distracted kingdom was then infested, the queen finally took refuge in France. It was not long before Warwick became embroiled with the young king, and determined to replace Henry on the throne. Edward was in turn obliged to escape to the continent, but, having obtained assistance from the duke of Burgundy, reäppeared in England after a few months, and defeated Warwick at Barnet, on the very day that Margaret landed in England with her son then 18 years of age. On hearing of the defeat and death of her champion, the courage of Margaret seemed for once to forsake her, and she took refuge in the monastery of Beaulieu. But her undaunted and masculine spirit again led her to the field; having collected her partisans, the hostile forces met at Tewksbury, and the Lancastrians were totally defeated. Her son was carried before the king. "How dare you," said Edward, "enter my realm with banner flying?" "To recover my father's kingdom," answered the prince, with the spirit of his mother, "and heritage from his father and grandfather to him, and from him to me lineally descended." Edward pushed him back, and the barbarous lords despatched him. Henry soon after died, if he was not murdered, in the Tower, and Margaret remained in prison four years. Louis XI ransomed her for 50,000 crowns, and, in 1482, she died, "the most unhappy queen, wife and mother," says Voltaire, "in Europe." Her courage, her sufferings, and her crimes have been delineated with historic truth and poetic beauty by the genius of Shakspeare.

Margaret of Austria, daughter of the emperor Maximilian I, born in 1480, was sent to France, after the death of her mother, Mary of Burgundy, to be educated at the court of Louis XI, to whose son (Charles VIII) she was affianced. Charles, however, having married Anna, heiress of Brittany, she was sent back to her father's court, and was married in 1497 to John, Infant of Spain. On the voyage to Spain, a terrible storm threatened the destruction of the ship. In the midst of the danger, while the rest of the company were at their prayers, she is said to have composed her epitaph in the following words:

> *Cy-gît Margot, la gente demoiselle,*
> *Deux fois mariée et morte pucelle.*

She arrived in safety, but, October 4, 1497, the Infant died. In 1501, she was married to Philibert II, duke of Savoy, who died in 1504. Her father then named her governess of the Netherlands, where her administration was distinguished by prudence and vigor. She died in 1530. Jean le Maire collected her addresses before the court and the estates, in the *Couronne Margaritique* (1549), which contains also many poems, and her *Discours de sa vie et de ses infortunes.* Fontenelle has made her a speaker in one of his witty Dialogues of the Dead.

Margaret of Valois, queen of Navarre, sister to Francis I, was born at Angoulême in 1492. She was brought up at the court of Louis XII, and married the duke of Alençon in 1509, became a widow in 1525; and, in 1527, was espoused to Henry d'Albret, king of Navarre. She joined with her husband in every effort to make their small kingdom flourish, by encouraging agriculture and the useful arts, and by improving knowledge and civilization. She was fond of reading, and had been led by curiosity to make herself acquainted with the principles of the reformers, to which she became partially a convert, and not only afforded protection to reformed divines, but used her influence with her brother Francis to the same purpose. She also read the Bible in the French translation, and formed mysteries for representation, from the New Testament, which she caused to be performed at court. She wrote a work entitled *Le Miroir de l'Ame pécheresse,* printed in 1533, which incurred the censure of the Sorbonne. She underwent some ill treatment from her husband on this account, and might have suffered more, but for the interposition of her brother, Francis I, who was much attached to her, and in complaisance to whom she, externally at least, became more strict in her attention to the ceremonial of the ancient religion. It will appear extraordinary in the present day, that a princess so contemplative and pious as Margaret of Valois, should be author of a book of tales as free in their tendency as those of Boccaccio. Such is *Heptameron, ou sept Journées de la Reyne de Navarre*, which was written during the gayety of youth, but not printed until after her death. She died in 1549, leaving one child, Joan d'Albret, afterwards mother of Henry IV. In 1547, a collection of her poems and other pieces was printed, under the title of *Marguerites de la Marguerite des Princesses*.

Margaret, called *Madame de Parma*, duchess of Parma, the natural daughter of Charles V and Margaret of Gest, was born 1522, and married first to Alexander of Medici, and afterwards to Octavio Farnese, duke of Parma and Piacenza. Philip II, of Spain, appointed her to the government of the Netherlands, in 1559, where she acted, under the advice of Granvella (q. v.), with considerable prudence, and, perhaps, might have restored quiet, had not the king sent the duke of Alva to aid in suppressing the disaffection. Alva brought such powers, that nothing but the title of sovereign was left to Margaret, who returned, indignantly, to Italy, to her husband, and died at Ortona in 1586. Her son was the famous Alexander Farnese, duke of Parma.

Margaret of France, queen of Navarre, wife of Henry IV, daughter of Henry II, was born in 1552, and was one of the greatest beauties of her age. Her talents and accomplishments corresponded to the charms of her person. She was married to Henry, then prince of Béarn, in 1572; but the duke of Guise was known to be the object of her affections, and, notwithstanding her amiable qualities and brilliant beauty, she never possessed the heart of her husband. (See *Henry IV*.) The gallantries of Henry, which he never pretended to conceal from his wife, could not excuse nor authorize, but doubtless contributed to increase, her own irregularities. On the escape of Henry from Paris, she demanded permission of Henry III to follow him, but was not, for a long time, allowed to depart. After living several years with the king of Navarre, she returned to Paris, on account of some disgust at the restraints placed on the exercise of the Catholic religion, and while there was guilty of the greatest licentiousness. Rejected at once from the court of Navarre and that of Paris, she maintained herself in the Agenois, in open defiance of her husband and brother. On the accession of the former to the throne of France, he proposed to dissolve their marriage, to which she consented, on condition of receiving a suitable pension, and having her debts paid. In 1605, Margaret returned to Paris, where she lived in great splendor, retaining her beauty, wit, and habits of dissipation, and died in 1615, at the age of 63. The house of Margaret was frequented by the wits of the day, and she knew how to unite excessive indulgence in pleasure with attention to study Some very agreeable poems by her are extant, and her *Mémoires* (1661 and 1713) are extremely curious.

Margate; a watering place in the isle of Thanet, Kent, England, 72 miles E. of London, with which it has frequent communication by steam vessels. Population, 7843. It has several pleasant promenades, among which the pier is the favorite. It is much resorted to for sea-bathing.

Margrave (from the German *Markgraf*, count of the mark; in Latin, *Marchio*; see *Marches*); originally a commander intrusted with the protection of a *mark*, or a country on the frontier. As early as the times of Charlemagne, marks and margraves appear; for instance, the mark of Austria. The margraves stood immediately under the German kings and emperors, and not under the dukes, in whose country the margraviate was situated; yet there were also some margraves dependent on dukes. In the 12th century, margraviates became hereditary, and, at last, the margraves acquired the rank of princes of the empire, and stood between counts and dukes in the German empire. The word *mark* signified, anciently, a landmark, and was then taken for countries on the frontier; as the mark Brandenburg.

Maria da Gloria. See *Miguel, Don.*

Maria Louisa, queen of Spain, daughter of Philip duke of Parma, born in 1751, was married to Charles IV, against his wishes, but in obedience to the express commands of his father, in 1765. Maria was prudent, not without address, and much superior to her husband in understanding. She soon overcame the violent temper of Charles, which at first broke out into acts of personal outrage, and so far prevailed over the formality of the Spanish court as to have unrestricted access to the king. Every thing was submitted to her approval. For her favorites she took care to secure the favor of the king previously to avowing her own inclinations, and thus had the merit of appearing to yield to the wishes of her husband. Even while princess of Austria, an intrigue with the elder Godoy was only terminated by his banishment from Madrid. His place was supplied by his younger brother, don Manuel Godoy (q. v.), who became equally the favorite of Charles. (See *Charles IV.*) Their intrigues led to the affair of the Escurial, in which Maria acted a most unnatural part against her son. (See *Ferdinand VII.*) In 1808, the revolution of Aranjuez took place, Charles abdicated, and Maria threw herself into the arms of the French. Charles was obliged to retract his abdication, and that celebrated correspondence with Murat followed, in which Maria Louisa, in a letter written with her own hand, accuses her son of hardheartedness, cruelty,and want of affection for his parents. After the well-known proceedings at Bayonne, Maria Louisa remained in France a short time with Godoy and the ex-king, and finally went to Rome, where she died in 1819. (See *Spain.*)

Maria Louisa, Leopoldine Caroline, arch-duchess of Austria, duchess of Parma, eldest daughter of the emperor Francis I by his second marriage, with Maria Theresa, daughter of Ferdinand, king of Naples, was born in 1791, and married to the emperor Napoleon at Paris, April 1, 1810. This connexion seemed to confirm the peace of the continent. Napoleon conducted his bride, in a kind of triumph, through the provinces of his empire. March 20, 1811, Maria Louisa became the mother of a son. The court of the empress was now more brilliant than ever. The next year, Maria Louisa accompanied her husband to Dresden, and visited, in company with her imperial parents, her former home. After this she returned to Paris. Before setting out for his final struggle, Napoleon appointed her regent of the empire, with many limitations. March 29, 1814, she was obliged to leave Paris with her son, and, April 1, retired to Blois, by the command of her husband. April 11, Napoleon abdicated his authority. She then went to Orleans, and, April 12, attended by prince Esterhazy, proceeded to Rambouillet. On the 16th, she had an interview with her father, at Petit-Trianon, which decided her fate. She was not permitted to follow her husband. In May, she passed through Switzerland, with her son, to Schönbrunn; and, March 17, 1816, she entered upon the administration of the duchies of Parma, Piacenza and Guastalla, secured to her by the treaty of Fontainebleau (April 11, 1814). April 20, 1816, she made her entry into Parma. In May, 1816, she declared herself grand-mistress of the Constantine order of St. George, which she had established. As Spain refused to accede to the acts of the congress of Vienna, it was agreed at Paris, June 28, 1817, between Austria, Russia, France, Spain, England and Prussia, that the duchies of Parma, Piacenza and Guastalla, on the death of the arch-duchess Maria Louisa (who no longer bore the title of *empress*, but that of *your majesty*), should revert to the Infanta Maria Louisa, formerly queen of Etruria (princess of Lucca), and her male heirs, and that Lucca should then be annexed to Tuscany. Austria, however, retained the Parmesan district (surrounded by the kingdom of Lombardy) on the left bank of the Po, and the right of maintaining a garrison in Piacenza. The son of Napoleon and Maria Louisa, formerly hereditary prince of Parma, is no longer called *Napoleon*, in the state calendar, but *Francis Charles Joseph.* By the treaty above-mentioned, on the death of his mother, and the reversion of Parma to the house of Bourbon, he will receive the appanage of Ferdinand grand-duke of Tuscany, in Bohemia. In 1818, the emperor Francis conferred upon the prince, his grandson, the title of *duke of Reichstadt.* (q. v.) When his father returned from Elba to Paris, in 1815, a plan was formed for carrying off the young prince from Schönbrunn, where he was under the care of the countess Montesquiou, who had accompanied him from France. The empress Maria Louisa had also received letters from her husband, inviting her to come, with her son, to France; but his letters were not answered. The design of carrying off the prince, conceived by the son of the countess Montesquiou, was discovered at the moment of its execution, March 19, 1815. The prince was transferred to Vienna, and placed under the inspection of Germans. May 29, he was again restored to his mother. When she went to Parma, he remained in Vienna, where he is attended entirely by Germans.

Maria of Medici. (See *Mary of Medici.*)

Maria Stuart. (See *Mary Stuart.*)

Maria Theresa, queen of Hungary and Bohemia, arch-duchess of Austria, and empress of Germany, daughter of the emperor Charles VI, was born at Vienna, 1717, and, in 1736, married duke Francis Stephen of Lorraine (who, in 1737, became grand-duke of Tuscany, by virtue of the treaty of Vienna, Oct. 3, 1735); the day after the death of Charles (Oct. 21, 1740), ascended the throne of Hungary

Bohemia and Austria; and, November 21, declared her husband joint ruler. She found the kingdom exhausted, the people dissatisfied, the treasury empty, and the army (with the exception of the troops in Italy) only 30,000 strong. The elector, Charles Albert of Bavaria, supported by France, laid claim to the Austrian hereditary territories, and the electors of Cologne and the Palatinate would likewise not acknowledge the succession of Maria Theresa. Charles Albert of Bavaria was descended from Anna, elder daughter of Ferdinand I, who, by will, had appointed that, upon the extinction of the Austrian male line, the succession to the throne of Bohemia and Austria should devolve upon his daughters and their heirs. Meanwhile Prussia, Poland and Saxony, Russia, the States-General and England, declared for the queen. France only delayed to make an express acknowledgment. Just in this situation of the Austrian court, Frederic II renewed his claim to four Silesian principalities, and offered, if he received them, to defend the young queen against her enemies. At the same time (Dec. 23, 1740), he marched with an army into Silesia. Maria Theresa was as much surprised as enraged at this step of the king, and Frederic's offers were refused altogether. Meanwhile, the king made rapid progress in Silesia, where the Protestants, who were much oppressed by the government of Austria, received him with joy. The queen of Hungary, although she could nowhere find an ally, with great resolution refused any kind of submission, and collected an army in Moravia, under general Neipperg. But the want of magazines, and the bad roads, prevented Neipperg from acting effectively. The Austrians were beaten at Molwitz, April 10, 1741. Marshal Belle-Isle, in the name of France, now negotiated with the king of Prussia, at Molwitz, upon the dissolution of the Austrian monarchy. Philip V, king of Spain, as a descendant in the male line of the house of Hapsburg, by virtue of the family contracts of 1617, laid claim to the throne of Austria; Charles Emanuel, king of Sardinia, a descendant of Catharine, second daughter of Philip II, demanded Milan; Augustus III, notwithstanding the treaty just concluded by him with Maria Theresa, made similar demands on account of his wife, eldest daughter of Joseph I. France had already contrived a plan of division; however, Frederic would not accede to it, lest France should become too powerful in Germany, but turned to George II of England, hoping, by his means, to induce the queen of Hungary to compliance. But she remained determined to defend the whole kingdom of her fathers, and England promised her a subsidy of £500,000. She had even already formed the design of dividing the states of the king of Prussia, and invited the king of England first to invade them. But Great Britain sought merely to negotiate a peace. Bavaria, in July, 1741, having begun the war against Austria, and two strong French armies having crossed the Rhine and the Maese; Frederic, likewise, having conquered almost all Silesia; the attempt at mediation, on the part of England, proved fruitless. Maria Theresa considered herself not warranted in giving up the smallest part of her kingdom. She became still more fixed in this determination, by the birth of the arch-duke Joseph. Her husband had little influence, and interfered little in the business of government. Hardly had the negotiations with Frederic been broken off, when Belle-Isle with a French army, and the elector of Bavaria, marched into Austria. Linz was taken, and the elector acknowledged arch-duke. The Bavarians and French marched to St. Pőlten, and Vienna was summoned to surrender. The king of England, who wished to send assistance to Maria Theresa, was compelled, by a second French army, to conclude a treaty of neutrality, in respect to Hanover, and to promise not to oppose the elevation of the elector of Bavaria to the imperial throne. The electors of Saxony, of Cologne, and of the Palatinate, acceded to the union against Maria Theresa. Spain, on the point of entering Italy, had secured the neutrality of the pope and the remaining Italian princes, and the king of Sardinia was prepared to join his troops to those of the house of Bourbon. In Silesia, Frederic was master of the capital, and on the point of uniting himself with the French and Bavarians. Maria Theresa's cause was desperate; forsaken by her allies, without troops, or money, or good ministers, she was preserved only by her courage, by the attachment of the brave Hungarians, and by the help of England. In this necessity, she summoned a diet at Presburg, and appeared before the assembly in mourning, clothed in the Hungarian fashion, the crown of St. Stephen on her head, and girt with the kingly sword. She addressed a speech, in Latin, to the states, in which she described her situation, and committed herself and her children entirely to the protection of her Hungarians.

The youth, the beauty, and the misfortunes of the queen, made a deep impression. The magnates drew their sabres and exclaimed, "*Moriamur pro rege nostro Maria Theresa.*" Till then she had preserved a calm, majestic demeanor; now she melted into tears, and the interest was still more increased. The troops furnished by Hungary, by their manner of fighting, and by their ferocity, spread terror through the German and French armies. In the mean time, the allies quarrelled among themselves, to which the pride of Belle-Isle much contributed, who wished to treat the German princes as vassals of France. Bavaria and Saxony contended for the supremacy. The king of Prussia therefore concluded, under British mediation (Oct. 9, 1741), a secret treaty with the English ambassador (who was invested with authority, for this purpose, by the queen of Hungary), according to which Lower Silesia was to be surrendered to Prussia. Soon after (October 26), Prague was conquered by the French and Bavarians, and the elector (November 19) was crowned king of Bohemia. He was likewise crowned emperor of Germany, at Frankfort, Feb. 12, 1742, and took the name of *Charles VII.* But his troops were defeated near Scharding (Jan. 23, 1742), and the electorate occupied by Khevenhiller, who gave up the land to be plundered by his army, and entered Munich upon the same day upon which Charles was crowned emperor. Frederic II, alarmed for Silesia, in consequence of the progress of the Austrians, put an end to the truce, pressed forward to Iglau, invaded Austria, and his hussars spread terror even to the gates of Vienna. He was obliged to retire, and Maria Theresa rejected his renewed proposals for peace; but the victory of Frederic at Chotusitz (May 17) hastened the conclusion of the preliminaries of peace, at Breslau (June 11, 1742). The queen ceded Upper and Lower Silesia and the county of Glatz, with the exception of the principalities of Teschen, Jagerndorf and Troppau, and the mountains on the other side of the Oppa. The definitive peace was signed the 28th July, under the guarantee of England. From this time, the arms of Austria were victorious; prince Charles of Lorraine drove back the French to Braunau, and blockaded Prague. The general opinion that the balance of Europe depended upon the continuance of the house of Austria, excited England to arm for Maria Theresa, and Holland paid her subsidies. In Italy, the king of Sardinia, injured by Spain, became reconciled to Maria Theresa (who ceded to him a part of Milan), and supported the Austrian arms against Spain and France. The internal condition of the latter country, and the age of the prime minister, cardinal Fleury, induced this statesman to think of peace. Maria Theresa rejected the proposed conditions. Maillebois, the French commander, received, therefore, orders to press forward from Westphalia to Prague. But prince Charles of Lorraine went to meet him with a part of his army, and Maillebois was compelled to give up his intention of relieving Prague. Belle-Isle, however, escaped by artifice with the greater part of his garrison, out of the famished city, and marched to Eger. The whole of Bohemia was now, as far as Eger, in the power of Austria, and Maria Theresa was (May 12) crowned queen of Bohemia. After the death of Fleury (Jan. 9, 1743), the cause of Austria triumphed throughout Europe. England granted new subsidies, and Sardinia received £200,000 in order to support the queen of Hungary. The States-General supplied 6000 auxiliary troops. The French were now driven out of the Upper Palatinate, by prince Charles of Lorraine, and the Bavarians, beaten in their own territories a short time before, conquered by him. The emperor, Charles VII, concluded, therefore, with the queen of Hungary, a treaty of neutrality, according to the terms of which he delivered to her, until a general peace, his hereditary states, and renounced his right of succession to the Austrian territories. The victory of the so called *pragmatic army*, consisting of English, Hanoverians, Austrians and Hessians, over the French, at Dettingen on the Maine (June 27, 1743), where George II of England fought in person, confirmed the queen and her allies still more in the determination to humble France. But through a want of unanimity, the plan, that prince Charles of Lorraine should enter France, was frustrated. The emperor Charles VII, stripped of his states, had settled, with George II, the preliminaries of peace, according to which he broke off his connexion with France, and agreed to other stipulations favorable for the court of Vienna. In return for these, he was to be recognised as emperor, and, for the support of his dignity and for the recovery of his states, was to receive subsidies. George promised to obtain Maria Theresa's consent, but she insisted on the deposition of Charles, and wished to retain Bavaria. As little was she inclined to transfer to the king of Sardinia the provinces promised him in the Milanese. Sardinia assumed, therefore, a threatening position. This and the representations of England compelled the queen, at length, to compliance. She gave up to Sardinia the province of Vigevano, together with some other districts, relinquished her claims on the margraviate of Finale, and gave to king Charles Emanuel III the chief command of 30,000 Austrian troops in Italy. But in spite of this, as well as of the previous victory of the Austrians near Campo Santo, over the Spaniards (Feb. 8, 1743), the Spanish and French, under the Infant don Philip subjected all Savoy. As now prince Charles of Lorraine could not effect his entrance into France, he returned to Vienna, where he married the arch-duchess Maria Anna, the sister of Maria Theresa, and received, as the reward of his service, the general government of the Netherlands. Until 1744, England and France had fought against each other as auxiliaries to the chief contending parties. Now followed a formal declaration of war on the side of France, as well against England (March 15) as against Austria (April 11). The French conquered the most important fortresses in the Netherlands, and marshal Saxe threatened to subdue the whole country, when prince Charles of Lorraine fell upon Alsace. Already the Austrian light cavalry had spread terror to the gates of Luneville, and king Stanislaus was compelled to fly from the place. The king of France, nevertheless, prepared a great force to meet the prince, and Charles was recalled in order to oppose the king of Prussia, who had again taken up arms. The proud and passionate Maria Theresa had refused to acknowledge the emperor at the diet of Frankfort. Moreover, she let her purpose be too plainly seen of holding Bavaria, of making conquests in France and Italy, of again taking Silesia, and, in connexion with Saxony and England, of dividing the Prussian states. Frederic, therefore, in order to anticipate her, and for the defence of the emperor, formed (May 22, 1744) with the emperor, with France, the elector of the Palatinate, and the king of Sweden, as landgrave of Hesse, a union at Frankfort. Accordingly, in August, he made an irruption into Bohemia, with 80,000 men, conquered Prague and the whole province upon the east side of the Moldau. The Bavarian and Hessian troops, at the same time, pressed forward into Bavaria, and placed the emperor again in possession of his capital. The terror of them spread even to Vienna, but Maria Theresa remained unshaken. She animated her Hungarians at the diet of Breslau, and these, assisted by Saxony and the Austrians, hurried to the deliverance of Bohemia. Charles of Lorraine also hastened out of Alsace and Lorraine, to the borders of Bohemia, and the Prussians were again compelled to quit the kingdom. On the other hand, France conquered Freiburg, the Austrian bulwark on the west, and pressed forward into the Netherlands. Even in Italy, the Austrian commander, prince Lobkowitz, after he had driven back the Spaniards, and almost made prisoner don Carlos, king of Naples, near Belletre, was compelled to retreat to Lombardy, on account of a want of troops. But the death of Charles VII (Jan. 20, 1745) opened a new field to the ambition of Maria Theresa. France endeavored anew to wrest from the house of Austria the imperial throne. But the cause of Austria prevailed, in spite of French artifice, at the Russian court. England also assisted the queen, Maria Theresa, again with troops and money. The object of the union of Frankfort having failed, Frederic II sought the intervention of Great Britain, in order to be reconciled with Austria. In the mean time, Maria Theresa concluded a treaty (April 22, 1745) at Fuessen, with the new elector of Bavaria, by which the latter recognised the pragmatic sanction, and pledged himself to remove the foreign auxiliaries from his states, and to vote for the accession of the duke of Lorraine, the husband of Maria Theresa, to the imperial throne. The queen of Hungary had, besides, concluded a quadruple alliance with the king of Poland, with Holland and England (June 8, 1745), at Warsaw, as well as a treaty at Leipsic (May 18), in which secret articles were introduced respecting the division of the Prussian states between Austria and Saxony. During these proceedings, the French made some progress. After the victory of marshal Saxe over the allies, near Fontenoy (May 11, 1745), the most important places of the Austrian Netherlands fell into the hands of the French. In Italy, where Genoa united itself with Spain, the French and Spaniards took a great part of the Milanese territories, and the king of Sardinia was compelled to withdraw to his capital. In Germany also, Frederic delivered himself from a critical situation by his victory over the Austrians and Saxons, at Hohenfriedberg (June 4, 1745). Soon after, the British cabinet concluded, at Hanover, a secret treaty with Frederic, in which Silesia was guarantied to him, in conformity with the peace of Breslau. But the queen of Hungary and the elector of Saxony showed no inclination to negotiate. Meantime, Charles of Lorraine was defeated near Sorr, by Frederic II, and Maria Theresa had merely the consolation of having her husband, Francis Stephen, chosen emperor (September 13). October 4, he was crowned with the title of *Francis I*. At this solemnity, Maria Theresa was the first to exclaim, from a balcony, "Long live the emperor Francis I." Notwithstanding her finances were entirely exhausted, and even the silver vessels of the churches had been sent to the mint, the imperial queen was unwilling to consent to peace. The Prussian proposals were altogether rejected, revenge was sought for, and Maria Theresa embraced the bold plan of marching an army, composed of Saxons and Austrians, against Berlin. Besides, she expected powerful support from Russia; but Frederic was beforehand with her: he defeated the Saxons, near Hennersdorf (November 23), upon which Charles of Lorraine drew back, from Lusatia to Bohemia, and the defeat of the Saxons, near Kesselsdorf (December 15), made the Prussians masters of the whole electorate of Saxony. The imperial queen did not yield to her own misfortunes, but, moved by the fate of her allies, concluded, under the British mediation (Dec. 25, 1745), the peace of Dresden, in which Frederic received Silesia, and Maria Theresa was recognised as queen of Bohemia, and her husband as emperor. This peace was so much the more necessary for Austria, as England, on account of the landing of the Pretender in Scotland, had been obliged to withdraw her auxiliary troops from the Netherlands, by which means the French had gained a superiority there. May 4, 1746, Louis XV made his entry into Brussels, and, with the exception of Luxembourg, all the Austrian Netherlands was in the hands of the enemy. The loss of a battle near Rocou (October 11), increased the misfortunes of Austria in this quarter. On the other hand, the army of the empress was victorious in Italy, under the prince of Lichtenstein, at San Lorenzo, over the Spaniards and French; and when, after the death of Philip V, his successor, Frederic VI, withdrew his troops from Italy, the Austrians obtained a complete superiority, and, particularly, blockaded Genoa. The English blockaded the same by sea, and the city surrendered, almost without any conditions, to the Austrians. But, exasperated by extortions, the citizens drove the imperial general Botta (who lost 8000 men, his whole artillery and baggage) from Genoa and its territories (December 5—9). Meantime England, as well as France and Spain, wished for peace. But the imperial queen had made a defensive alliance with Russia (May 22, 1746), to which also Holland and England had acceded. The French, nevertheless, drove the Austrians from Provence, which they had laid waste, and freed Genoa (1747), which had been besieged anew. In the Austrian Netherlands, they made still greater progress. But the advance of the Russians into Germany, and the victory of admiral Hawke over a French squadron, by which the naval force of France was destroyed, hastened the peace. April 30, 1748, the preliminaries were signed by France, Great Britain and Holland; then followed the peace of Aix-la-Chapelle (November 18), to which, also, Spain, Austria and Sardinia acceded. Maria Theresa was acknowledged as the heiress of her father's kingdom; the Infant don Philip obtained only the duchies of Parma, Piacenza and Guastalla; several provinces also ceded to the king of Sardinia by the treaty of Worms, were left to him. Maria Theresa now turned all her attention to the restoration of her finances and the improvement of the army. The yearly income, which, in the time of Charles VI, had amounted only to 30,000,000, rose, by prudent management, to 36,000,000 guilders, although Parma and Silesia, which last alone produced 6,000,000, were lost. The army consisted of 108,000 men, besides the troops in Italy and the Netherlands, and the whole military department, under the direction of Daun, was placed upon a better footing. Maria Theresa also made great changes in the administration of justice, of the finance, and of the police. Though she unwillingly allowed herself to be governed, yet, from her inexperience, she did not rely upon herself, and sought to procure exact information by consultations with her ministers, her husband and others. The difference of opinion of two of her counsellors, Wasner and Bartenstein, frequently led her to waver between opposite measures until she at length confided to the count (afterwards prince) Kaunitz, the chief direction of public affairs. Several causes of disunion, which now arose between England and Austria, induced the latter to think of a reconciliation with France; and Maria Theresa, in spite of her pride and her strong principles, consented, upon the advice of Kaunitz, to write very kindly to the marchioness of Pompadour, who, enraptured by this condescension of the greatest queen of Europe, exerted all her influence to effect the connexion which Maria Theresa desired. Yet her endeavors were foiled, at this time, by the counter representations which the friends of Frederic II and the enemies of Austria made to the cabinet of Versailles. In 1755 arose dissensions between England and France, respecting their possessions in America, and Great Britain demanded aid of Austria. This was refused, and thus the foundation for the disunion of these powers, hitherto friendly, was laid. Frederic II made use of this opportunity, and concluded with George II (Jan. 16, 1756) a treaty, in which they mutually agreed to prevent the entrance of foreign troops into Germany. The marchioness of Pompadour, in this year, effected a change in the French ministry, and this made it possible to establish friendly relations between the courts of Vienna and Versailles. Maria Theresa concluded now (May 1) the union with France against Frederic the Great, which occasioned the seven years' war (q. v.; also *Frederic II*). After the conclusion of this unfortunate war, Maria Theresa's son, the archduke Joseph, was chosen Roman king, March 27, 1764, by which means the imperial queen confirmed her family in the possession of the German imperial dignity. Her husband, the emperor Francis, died Aug. 28, 1765, and his death caused her deep and lasting distress. Joseph II was now emperor, but, although declared by his mother, her colleague in his hereditary possessions, he mingled as little as his father had done in the internal government. Only the direction of the army was given to him. Maria Theresa founded and improved schools, universities and academies, and granted prizes to the students. She rewarded, also, those who made any important improvements in the arts, and turned her attention particularly to agriculture, which was denominated, upon a medal that she caused to be struck, the support of all the arts. Still greater was her merit in the abolition of many abuses of the church. She forbade the presence of the clergy at the making of wills, deprived the church and the convents of their right of sanctuaries, and suppressed the inquisition at Milan. She abolished the order of Jesuits, and prohibited the admission of individuals of both sexes as members of convents before the age of 25 years. She also abolished the rack in all her states. Apparently through the influence of Kaunitz, she concluded at Petersburg (Aug. 5, 1772), with Russia and Prussia, the agreement for the partition of Poland. In this partition, she received Galicia and Lodomiria (27,000 square miles, with 2,500,000 inhabitants). To induce her to abstain from farther demands, the Porte was compelled to give up Bukowina to her (Feb. 25, 1777). Austria was now in a prosperous situation. It had 260,000 troops, and an income exceeding its expenditures. The politic Choiseul therefore sought, by the marriage of the dauphin with the daughter of Maria Theresa (1770), the afterwards so unfortunate Maria Antoinette, to form a closer union between France and Austria; and the court of Vienna acceded to the proposal, hoping, on the accession of Louis XVI to the throne, to obtain a powerful influence over the cabinet of Versailles. About this time, the death of the elector of Bavaria (Dec. 30, 1777) produced the Bavarian war of succession. (See *Teschen, Peace of.*) Austria received, on this occasion, the Innviertel; but the decline of her influence over Germany was perceptible. After this peace, the court of Vienna sought to unite England as well as Russia more firmly to itself, in order to procure for the archduke Maximilian the electoral dignity of Cologne and the bishopric of Munster, which was at last effected, in spite of the opposition of Frederic II. Thus had Maria Theresa obtained for her three younger sons the government of important states: for Leopold, the grand-duchy of Tuscany; for Ferdinand, by a marriage with the daughter of the duke of Modena, the succession to that duchy; and for Maximilian, the dignity of elector and bishop of Cologne and Munster. Of her six daughters, the two younger were united to kings, namely, of France and Naples; and the house of Austria, which, in 1740, seemed on the brink of ruin, was now, by the internal situation of its states, as well as by its foreign family and other connexions, at the very summit of power. Maria Theresa died Nov. 29, 1780, at the age of 63. As a ruler, she was unceasingly active. She loved her children with the deepest tenderness. To her servants she was very kind. The welfare of her subjects was her highest aim. But she lent an ear too easily to spies and informers, and endeavored to introduce them into the privacy of families. Her great piety bordered upon enthusiasm, and made her intolerant; hence the pernicious restraint of the press, &c. She wrote two or three books of devotion, of which one was published at Vienna (1774). She sometimes gave way to her passions, yet knew how to control herself quickly. When young, she was one of the handsomest women of her time. In advanced age, she became very corpulent. The small-pox, in 1767, and, soon after, a fall from a carriage, which nearly deprived her of sight, destroyed her beauty. After the death of her husband, she appeared to be sunk in deep melancholy, and neglected her appearance entirely. She deserves to be recorded as an instance of conjugal love. Of 16 children, which she bore the emperor, 10 survived her. The 4 sons and the 2 younger daughters, we have noticed above. Of the 4 elder ones, the first was abbess of Prague and Klagenfurt; the second, Marie Christine (the favorite of her mother), was married to duke Albert of Saxe-Teschen, a son of Augustus III, king of Poland; the third was abbess of Inspruck, and the fourth, wife of the duke of Parma.

Mariana, Juan, or John, one of the first Spanish historians, was born at Talavera, 1536, devoted himself to the clerical profession, and entered the society of the Jesuits. At the university of Alcala, he acquired that pure taste and that eloquence which are found in his writings. He then journeyed, and taught theology, for 13 years, with distinction, in Rome, Sicily and Paris. The climate of the latter city, however, and still more his indefatigable industry, undermined his health, so that he returned, in 1574, into the Jesuits' college at Toledo. He now wrote his *Historia de Rebus Hispaniæ* (first ed., Toledo, 1592), in elegant Latin, that the great deeds of his countrymen might become known to all nations. His tone is impartial, though he ardently loves Spain, and admires Spanish virtue. Though a Jesuit, he complains of pope Alexander VI, and says that he caused Cæsar to leave the clerical order *contra fas, contra auspicia, contra omnia æquitatis jura.* Though a Spaniard, he is not blindly prejudiced for his king. He describes, with sorrow, the conquest of Naples; and his censure of Ferdinand is moderated only by considering his good qualities as personal, his bad ones as common to all princes. His style is elegant, and often beautiful and concise. His freedom excited the suspicions of the inquisition. He has not, however, much claim to originality. Ranke, in his *Zur Kritik neuerer Geschichtschreiber* (Leipsic and Berlin, 1824), says that, having made excerpts of Mariana and Zurita throughout, he hardly found a single instance in which Mariana followed sources peculiar to him. Every thing important appears to have been taken from Zurita, because they agree entirely; and Zurita's work preceded Mariana's considerably, having been dedicated to the deputies of Arragon, in 1579, while the five last books of Mariana's History appeared in 1605. Ranke concludes, therefore, that Mariana cannot maintain a place among the sources of modern history, but admits that his nature and spirit will always render him worth reading. The great success of Mariana's work, and the fear of seeing it badly translated, induced the author to translate it into the Castilian idiom himself, with those improvements which the progress of years had suggested to him. Four editions of the translation appeared during his lifetime, each with corrections and additions. Excellent editions of the Spanish work appeared at Valencia (1785 to 1796, 9 vols., folio) and at Madrid (1819, 8 vols.). An English translation was made by captain Stephens, the continuator of Dugdale's *Monasticon* (London, 1699, folio). Mariana's other writings are, 1. his famous essay *De Rege et Regis Institutione*, which exposed the author to much inconvenience, and, 11 years after its publication, was condemned to be burned by the parliament of Paris as a revolutionary work, because it maintains that it is permitted to make way with a tyrant. The original edition of this work has become very rare. 2. *De Ponderibus et Mensuris.* 3. Seven essays, which appeared together in a folio volume, 1609, at Cologne. Mariana dedicated his last years to his *scholia* on the Old and New Testament, the completion of which his infirmities prevented. Yet he caused them to be printed, in 1619, at Madrid. He died in 1623, at Toledo, 87 years old.

Mariana, or Marianne Isles. (See *Ladrones.*)

Marie Antoinette. (See *Antoinette.*)

Mariegalante; an island in the West Indies, belonging to France; lat. 16° N.; lon. 65° 50′ W.; 5 leagues from Guadaloupe. The chief productions are sugar, coffee, and cotton. Population, 11,778; 1555 whites, and 9529 slaves. It is a dependent of Guadaloupe. Columbus discovered it in 1493, and called it from his vessel. The French occupied it in 1697, and have lost it several times. In 1825, it suffered severely from the hurricane which desolated Guadaloupe.

Marienbad (German for *Mary's bath*);

a watering-place in the circle of Pilsen, in Bohemia, about 30 miles distant from Carlsbad, in a woody country, ranking with the famous watering-places of Teplitz, Carlsbad and Franzensbrunn. The mineral wells, at present so important in a medicinal respect, were little known before 1781. (See Heidler, *Marienbad, nach eignen bisherigen Beobachtungen und Ansichten ärztlich dargestellt* (2 vols., Vienna, 1822).

Marienburg; a town on the Nogat, with 5000 inhabitants, in the Prussian government of Dantzic, province of Western Prussia. This town is famous for the ruins of one of the finest monuments of German architecture—the castle of the Teutonic knights. The first castle was finished in 1276, but it was completely rebuilt from 1306 to 1309. The style was truly elevated, accompanied with a rare lightness and elegance of proportions. The ruins have lately been secured from further decay. Much has been written on them: Jacob's *Das Schloss Marienburg* (1819); professor Büsching's *Das Schloss der Deutschen Ritter in Marienburg* (Berlin, 1823, 4to., with seven engravings); and professor Voigt's *Geschichte Marienburg's, mit Ansichten des Ordenshauses* (Königsberg, 1824).

Marietta; a post-town, and seat of justice for Washington county, Ohio. It is beautifully situated on the bank of the Ohio, immediately above the mouth of Muskingum river. This was the earliest town, of much importance, settled in this state. General Rufus Putnam, of Leicester, Massachusetts, and 47 others, arrived here as residents April 7, 1788. The site is, in part, frequently overflowed. Distance from Washington, 315 miles, 186 east of Cincinnati, 100 south-easterly from Columbus; population of the whole township, in 1830, 1914; of the village of Marietta, 1207.

Mariette, Pierre Jean, born at Paris, 1694, died in 1774, was instructed by his father in the art of engraving, and, by his travels in Germany and Italy, rendered himself familiar with the fine arts. In 1750, he purchased the post of royal secretary and *controleur* of the chancery, and devoted himself entirely to his collection of engravings. His works are *Traité du Cabinet du Roi* (1750); *Lettres à M. de Caylus; Lettres sur la Fontaine de la Rue de Grenelle; Architecture Française;* Descriptions of D'Aguilles's and Crozat's collections, &c. His taste and learning procured him the friendship of Caylus, Barthelemy and Laborde, by whom he was intrusted with the supervision of the *Recueil des Peintures antiques*, from drawings by Pietro Santo Bartoli.

Marignano, or Melegnano; a town in Italy, three leagues and a half south-east of Milan; rendered famous by the victory of Francis I over the Swiss and the duke of Milan. (See *Francis I.*)

Marine. (See *Navy.*)

Marine Law. (See *Commercial Law.*)

Marini, or Marino, Giambattista, stands at the head of a school of Italian poets —the Marinisti. (See *Italy*, division *Italian Poetry.*) He was born, 1569, at Naples. Against the wish of his father, who intended him for the study of the law, he followed his inclination for poetry. The duke of Bovino took him into his palace, and the prince of Conca, high admiral of the kingdom, into his service. Here he became acquainted with Torquato Tasso, and, in intercourse with him, his powers were developed. At a later period, he found a patron in the cardinal Pietro Aldobrandini at Rome, with whom he went to Turin, where a flattering poem, on the duke of Savoy, entitled *Il Ritratto*, procured him a kind reception, an order, the title of the duke's secretary, &c. The envy of his enemies, and his satirical humor, involved him in various disputes. Margaret, the divorced wife of Henry IV, had invited him to Paris. After her death, Maria de' Medici became his patroness there. He showed his gratitude in a poem—*Il Tempio*—for which new rewards were bestowed upon him. Towards the end of 1622, he returned to Italy, was elected president of the *Accademia degli Umoristi* at Rome, and, after some time, proceeded to his native place. Here he chose the incomparably beautiful Posilippo for his residence, and hoped to enjoy the fortune he had acquired; but death removed him in 1625. Marini's most famous work, the epic *Adone*, was first published in Paris, 1623, and has been equally praised and blamed, both for its plan and execution. The voluptuousness of many passages has placed it among the prohibited books. The other works of Marini are a narrative poem *La Strage degli Innocenti*, and a great collection of miscellaneous poems (published at various times, under the titles of *La Lira*, and *La Zampogna*); also *Lettere grave, argute, facete*, and other compositions in prose and verse. Some of his sonnets are among the most perfect in the Italian language. He who has read Marini—and there are many who condemn him without having done this —will readily admit that nature endowed him with the gifts of a poet, but ambition made him fail. He was jealous of the laurels of Ariosto and Tasso, and strove after a new distinction, attempted to penetrate deeper into the recesses of the human heart, to enhance the beauty of the beautiful, and to give new zest to voluptuous description; hence the undue freedom of his coloring; hence his far-fetched metaphors and forced conceits;* yet, in spite of these, talent, wit, and the power of imparting new charms to common things, cannot be denied him; but the faults of the master became insupportable in his followers, who could imitate indeed his conceits, but could not redeem them by flashes of genius.

Marino, San, an Italian republic, in the ancient duchy of Urbino, is the smallest state in Europe. In the fifth century, a stone-mason, named Marino, established himself in a hermitage, on the hill now occupied by the town. His followers were so numerous as to constitute an independent community, which received its name from the hermit. Besides the mountain on which the town stands, the republic possesses two adjoining hills, the whole territory covering an extent of about 30 square miles, and comprising, in the capital and four villages, 7000 inhabitants. The territory is industriously and skilfully cultivated, and yields fruits, silk, oil, wine and corn. The capital is situated on the summit of a mountain, accessible only by one narrow road, and surrounded with walls. The government is in the hands of a senate of 300 elders, and an executive council of 20 patricians, 20 burghers, and 20 peasants. Two *gonfalonieri*, elected quarterly, are at the head of the executive. The laws are collected in a code, called *Statuta Illustrissimæ Reip. S. Marini.*—See Valli, *Origine e Governo di San Marino* (1655); Delfico, *Memorie di S. Marino* (1804); Simond's *Travels in Italy.*

Marion, Francis, a distinguished American officer in the revolutionary war, was born near Georgetown, South Carolina, in the year 1733. He was engaged in agricultural pursuits until the year 1759, when he became a soldier, and served with credit against the Cherokee Indians. As soon as the war between the mother country and the colonies broke out, he was called to the command of a company in his native state. In 1776, he coöperated bravely in the defence of fort Moultrie, and soon reached the rank of lieutenant-colonel, commandant of a regiment, in which capacity he acted during the siege of Charleston. He became, subsequently, as brigadier-general in the militia of South Carolina, an indefatigable and most useful partisan. The country from Camden to the sea-coast, between the Pedee and Santee rivers, was the scene of his operations. Many very striking and characteristic anecdotes of his prowess and habits are related in the life of him, written by colonel Hovy, and in Garden's Anecdotes of the Revolutionary War. It is stated that, in addition to his distinction in partisan warfare, general Marion acquired much reputation by the assistance which he bestowed in conducting the sieges of the captured posts held by the enemy. At Georgetown, fort Watson, fort Moste, Granby, Parker's ferry, and at Eutaw, he highly distinguished himself. Major Garden represents him as next, if not altogether equal, to Henry Lee, in vigilance, activity and enterprise. He died in February, 1795, leaving an excellent personal as well as a high military character.

Marionettes. (See *Puppet-Shows.*)

Maritime Law. (See *Commercial Law.*)

Marius, Caius; a Roman of Arpinum, in the territory of the Volsci, born of obscure parents, whom he assisted in the labors of the field. With strength of body he united much understanding, firmness of purpose, and a spirit of enterprise. His character was rough, ambitious and unyielding. Marius devoted himself to a military career, and gave the first proofs of his courage at Numantia, under Scipio Africanus. His merits successively raised him through the different ranks, and Scipio foresaw in him a great general. During the consulship of Cæcilius Metellus and L. Aurelius Cotta, he was made tribune by the influence of the former. In order to check the abuses at the Comitia, he proposed the law making the entrance to the place of voting narrower, so as to protect the citizens from the solicitations of the candidates and their friends (*lex Maria*). The patricians, indignant at a law so injurious to their influence, demanded of Marius an explanation of his motives. The two consuls declared against him; but Marius threatened them with the weight of his tribunitial authority, and, without regard to his obligations to Metellus, ordered the lictor to conduct the consul to prison. His firmness triumphed, and gained him the favor of the people. He afterwards modified the law proposed by Gracchus for the division of corn among the poor citizens, so as to spare the public treasury. He then stood candidate for the edileship, but without success. He was, however, appointed pretor. Having been charged with procuring his election by bribery, he was acquitted, and discharged the duties of his office to general satisfaction, supplying the deficiencies of his education by the natural strength of his understanding. The office of pro-pretor of Spain, which was conferred on him the following year, he discharged with great reputation. He delivered the country from robbers, and endeavored to civilize the yet savage natives. On his return, he again devoted himself to political affairs; and, by his marriage with Julia, the aunt of Julius Cæsar, connected himself with the illustrious Julian family. A wider career was now open to him. He accompanied the consul Q. Cæcilius Metellus, as his lieutenant, to the Jugurthine war. His courage and his patience in hardships, in which he placed himself on a level with the meanest soldier, gained for him the esteem of Metellus and the love of the army. But Marius was so ungrateful as to vilify the man who had raised him from obscurity, in order to rise by his fall. Their hatred increased daily. At length Marius asked permission of Metellus to return to Rome, in order to seek for the consulship. Metellus, not without ridicule, refused his request; but Marius continued his importunity, till he obtained his object, a few days before the election of the consuls. In six days he hastened to Rome, and, by calumnies against Metellus, and the most extravagant promises, he gained over the minds of the people so completely, that he was chosen unanimously; and, although Metellus had been appointed proconsul of Numidia for the third time, he obtained the command in that province (B. C. 108). L. Cassius Longinus was his colleague in the consulship. As Marius perceived that his plebeian origin would never permit him to gain the support of the patricians, and that he could expect nothing but from a powerful party among the common people, he declared himself the enemy of the nobles. In proportion to the violence with which he attacked the nobility in his public speeches, was the favor of the populace. As the rich refused to enrol themselves in his legions, in order to complete the number, he had recourse to the lowest class of citizens, who had previously been employed only in cases of the most pressing necessity, and taught the Roman people to enrich themselves by the service. With the speed of lightning, he appeared in Utica, and began the campaign. In the mean time, Jugurtha had found an ally in Bocchus, king of Mauritania. Two armies opposed the Romans. Marius avoided a general engagement till he was forced to yield to the impatience of his men. He then directed his march through the deserts of Numidia to Capsa, the capital of the country, which he stormed and destroyed. Terrified by this cruel example, every place which he approached surrendered. While Marius was prosecuting the war, L. Cornelius Sylla, the questor, arrived with a reinforcement of cavalry, and, by his courage, his perseverance against obstacles, and his austere manner of living, gained the friendship of his commander. After the capture of Mulucha, Marius led his troops back to the sea-coast, in order to place them in winter quarters. On this march, Bocchus and Jugurtha attacked him, and surrounded him in his intrenchments. The Romans seemed to be lost; but, during the night, Marius fell upon the enemy, exhausted with dancing and revelry, and almost entirely destroyed them. After this defeat, Bocchus made his peace with the Romans, and was persuaded by Sylla to betray Jugurtha to them. Marius divided a part of Jugurtha's territory between Bocchus and Hiempsal II, or Mandrestal, and made the remainder a Roman province. Before his return to the capital, he received the unexpected information that he was chosen consul the second time. The people, terrified by the approach of the Cimbri and Teutones, had chosen him contrary to the laws. Marius received in Rome the honor of a triumph. He then marched over the Alps to Gaul, while C. Fulvius Fimbria, his colleague, went to Upper Italy. The Cimbri and Teutones, instead of passing into Italy, had invaded Spain, and thus given Marius an opportunity to discipline his army. As the terror of the Cimbri was unabated, he was made consul a third and fourth time in succession. The barbarians at length returned from Spain, and threatened to invade Italy from two sides. Marius stationed his army at the confluence of the Rhone and the Iser, while his colleague Lutatius Catulus was to take his position at the foot of the Norican Alps. As it was impossible for ships to enter the mouths of the Rhone, he constructed a canal, the Fossa Mariana, uniting the waters of the

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* As an instance of the latter, take the following:

Innanzi ai raggi della cui beltade
Lo stupor di stupor stupido cade.

Or this:

Con tal lusinghe il lusinghiero amante
La lusinghiera Dea lusinga e prega.

Rhone with the Mediterranean, to supply the army with provisions from the sea. This work was scarcely finished, when the Teutones, with the Ambrones, pitched their camps opposite to the Romans. Marius hesitated to meet in the open field so superior a force; and, by cutting off their means of subsistence, he hoped, if not to destroy, at least to weaken, them. But the barbarians determined to continue their course, without regard to the Roman army. Marius pursued and overtook them at Aquæ Sextiæ. He first attacked the Ambrones, and, on the next day, the Teutones, and destroyed both armies (B. C. 102). On the report of this victory, messengers were sent from Rome, to inform him that he was appointed, for the fifth time, to the consulship, and that the honor of a second triumph was decreed him. The latter, however, he would not accept until he had made himself worthy of it by the defeat of the Cimbri. These barbarians had entered Italy on the east: Marius united his forces with those of Lutatius, and marched against them. They then sent an embassy, requesting a grant of territory in which they might reside. But Marius scornfully announced to them the total destruction of their allies. Exasperated by this news, the Cimbri advanced to meet him. Bojorix, their king, called upon Marius, to fix upon a time and place for a decisive engagement. He selected a plain called *Campi Raudii*, not far from Vercelli, which would not allow the Cimbrian army (300,000 foot and 15,000 horse) to avail themselves fully of their superiority of numbers. The Roman army was 52,000 strong. Marius reserved to himself the chief attack, but the battle was decided by Lutatius and Sylla. The defeat of the barbarians was complete: 150,000 fell, 60,000 surrendered, and the remainder preferred a voluntary death to slavery (B. C. 101). Marius and Lutatius entered the city in triumph. The victorious general was appointed consul for the sixth time, although the noble Metellus Numidicus was his rival. He now entered into a combination with the tribunes of the preceding year: Apuleius Saturninus and the pretor Servilius Glaucia, and, in connexion with them, employed every means to gain the people, and deprive the patricians of their privileges. This was effected chiefly by the law, that every order of the people should be confirmed by the senate, within five days after its promulgation. The senators were compelled to swear obedience to this law; and Metellus, refusing to do it, was punished with exile. In the mean time, Marius had become an object of suspicion to both parties, by his ambiguous conduct, and, on the next consular election, he was not rechosen. Saturninus and Glaucia were the victims of popular fury. Chagrined at the recall of his enemy Metellus, Marius went to Asia, under pretence of performing a vow to Cybele, but, in reality, to gain new importance by kindling a new war. On his return, he was astonished to find himself almost entirely forgotten, and Sylla the favorite of the people. His hatred was excited, and a civil war would have been the consequence, if the consuls had not checked it in its commencement. Soon after this, the social war broke out. Marius gained a few victories in an inferior command, but acquired less reputation than might have been anticipated. His strength was broken by age and sickness, and, in the midst of the war, he resigned his office. This dangerous contest was hardly closed, when the civil war broke out between Marius and Sylla. They were both candidates for the command against Mithridates. The consuls favored Sylla. P. Sulpitius, tribune of the people, who favored Marius, attacked them sword in hand, and drove Sylla from Rome. Marius received the chief command; but the army marched to Rome under his rival, where Marius was committing the greatest violences against the friends of Sylla. Sylla entered the city without resistance. Marius and his son fled, and were proscribed. Separated from his son, Marius wandered about on the coasts of Italy, and, after escaping several times the pursuit of his enemies, was found by some horsemen in a marsh. He was conducted naked to Minturnæ, where the magistrate, after some deliberation, resolved to obey the orders of the senate and of Sylla. But the Cimbrian slave, to whom the execution was intrusted, awed by the look and words of Marius, dropped his sword, and the people of Minturnæ, moved with compassion, conducted him to the coast, whence a vessel conveyed him to Africa. He landed amid the ruins of Carthage, and joined his son, who had sought assistance in Numidia in vain. They spent the winter together in the island Cercina. When they received information that their party had once more triumphed in Italy, by means of Cinna, Marius hastened to return. He declined the honors offered him, and united himself with Cinna and Sertorius. They resolved to attack the city, which was defended by Octavius. Provisions and soldiers failing in the city, the senate, therefore, offered to throw open the gates, on condition that no Roman should be put to death without trial. This was granted. Marius was at first unwilling to enter the city, till the act of proscription against him was repealed. But while the citizens were assembled to rescind the act, he entered with his infuriated followers, and, in violation of the conditions, a dreadful massacre took place, to which Sertorius and Cinna finally put an end. He had given orders for the death of every one whose salutation he did not return. Almost all the senators, who were opposed to the popular party, were put to death, and their estates confiscated. When the term of Cinna's consulship was completed, he declared himself and Marius consuls. Marius was now 70 years of age, and enjoyed this dignity for the seventh time; but 17 days after he died (B. C. 86), exhausted by his preceding sufferings, and by the anxiety which the threats of Sylla occasioned.

Marivaux, Pierre Carlet de Chamblain de; a novelist and dramatic writer, born in Paris, 1688, was led by his inclinations to write for the theatre; thinking that nothing new was to be done in the way of character pieces, Marivaux wrote comedies of intrigue. He was not without delicacy, but it was connected with a certain littleness. His characters want life, his plots variety. The developement of the intrigue is so simple, that the *denouement* is discoverable from the beginning. He is so far-fetched and affected, that the French have given his name to a conceit and affectation of manner or expression (*marivaudage*). At the time of their appearance, his dramas were popular; but a few only have remained on the stage. Among his other productions, the best is his *Vie de Marianne*, which abounds in interesting situations, faithful delineations and tenderness of sentiment; *Le Paysan parvenu*; *Le Philosophe indigent*, &c., are not of much merit. The same forced and conceited style that disfigures his theatrical productions, prevails in these romances. He became a member of the French academy in 1743, and died in 1763.

Marjoram (*origanum*); a genus of labiate plants, two or three species of which are cultivated in gardens, and used for culinary purposes. They are very agreeable aromatics, and diffuse a sweet and pleasant odor.

Mark, County of, in the former circle of Westphalia, at present in the Prussian province of Westphalia, government of Minden, contains 657 square miles. Part of it is extremely fertile, part mountainous. It affords much iron-ore and coals, which furnish fuel for the many manufactories in all kinds of wares of metal. About 5000 people are here engaged in manufacturing. In 1801, the inhabitants amounted to 133,000. In 1807, the county of Mark was added to the grand-duchy of Berg, and formed the greater part of the department of the Buhr. In 1813, it reverted to Prussia.

Mark. (See *Marches.*)

Mark Antony. (See *Antonius.*)

Mark, the Evangelist; according to the old ecclesiastical writers, the person known in the Acts of the Apostles by the name of *John Mark*, who was, for many years, the companion of Paul and Peter on their journeys. His mother Mary was generally in the train of Jesus, and his house at Jerusalem was open constantly for the reception of the apostles. He was himself present at a part of the events which he relates, and received his information partly from eye-witnesses. His gospel is plainly intended for Christian converts from paganism. It is not certain, however, whether it was first read at Rome or Alexandria, where he had established churches, or at Antioch. He is distinguished from the other evangelists by his brevity, passing over much that relates to his character as Messiah, which could be important only to Jewish converts. The genuineness of his gospel has never been questioned with any good grounds.

Mark, or Marc, denotes a weight used in several parts of Europe, and for several commodities, especially gold and silver. When gold and silver are sold by the mark, it is divided into 24 carats.—*Mark* is also, in England, a money of account, and in some other countries a coin. The English mark is two thirds of a pound sterling, or 13*s.* 4*d.*, and the Scotch mark is of equal value in Scotch money of account. (For the mark-banco of Hamburg, see *Coins.*)

Mark, Library of St. (See *Venice.*)

Mark, Order of St.; a Venetian order, the origin of which is not known. The doge, as well as the senate, elected knights of St. Mark, who enjoyed a pension. Foreigners, also, particularly scholars, were elected.

Mark, Place of St. (See *Venice.*)

Markland, Jeremiah, an eminent critic, was born in 1693, and received his education at Cambridge. In 1717, he obtained a fellowship in that university, which he held until his death in 1776. His time was devoted to his favorite studies, uninterrupted by any avocations but those of a college and travelling tutor. His principal works are, an edition of the *Sylvæ* of Statius; Notes on Maximus Tyrius; Remarks on the Epistles of Cicero to Brutus, and of Brutus to Cicero; with a Dissertation upon four Orations ascribed to Cicero; an edition of the *Supplices Mulieres* of Euripides; to which was annexed a tract *De Græcorum quintâ Declinatione*, and other philological works.

Marlborough, Duke of. (See *Churchill.*)

Marl. Compact limestone (q. v.), by increase of argillaceous matter, passes into marl. Marl is essentially composed of carbonate of lime and clay, in various proportions. But some marls are more or less indurated, while others are friable and earthy. In some, the argillaceous ingredient is comparatively small, while in others it abounds, and furnishes the predominant characters. The calcareous and argillaceous marls unite by imperceptible degrees, and the latter sometimes pass into clay. Marl frequently contains sand and some other foreign ingredients. Some divide marls into calcareous and argillaceous, others into indurated and earthy. The hardness of indurated marl is inconsiderable. In most cases, it may be scratched by the finger nail, and may always be easily cut by a knife. It has a dull aspect, like chalk or clay, often with a few glimmering spots arising from sand or mica. Its fracture, usually earthy, may also be splintery or conchoidal. It is opaque; its color commonly gray, often shaded with yellow, blue, brown, black, &c. It also presents shades of green, and is sometimes reddish or yellowish-brown. Specific gravity usually between 2.3 and 2.7. It occurs in masses either compact or possessing a slaty structure. All solid marls crumble by exposure to the atmosphere, usually in the course of a year, but sometimes a longer period is requisite. The same changes generally take place in a very short time, when the marl is immersed in water, with which it forms a short paste. It crumbles more easily, and forms a more tenacious paste in proportion as it becomes more argillaceous. It is always more or less easily fusible. All marls effervesce with acids, sometimes very briskly and sometimes feebly, according to their solidity and the proportion of carbonate of lime, which may vary from 25 to 80 per cent.; indeed, in the argillaceous marls, it is often much less. Earthy marl differs from the preceding by being more or less friable, or even loose; but they gradually pass into each other. Like the indurated marl, it may be either calcareous or argillaceous. It sometimes greatly resembles clay, but may be distinguished by its effervescence in acids. Marl, like clay, belongs both to secondary and alluvial earths, where it occurs in masses or in beds. Hence it is found associated with compact limestone, chalk, gypsum, or with sand or clay. It contains various organic remains, as shells, fish, bones of birds and of quadrupeds, and sometimes vegetables. The organic remains are numerous and extremely interesting in the marly strata examined by Cuvier and Brongniart in the vicinity of Paris. Marl is found more or less in most countries. Its most general use is as a manure. The fertility of any soil depends in a great degree on the suitable proportion of the earths which it contains; and whether a calcareous or an argillaceous marl will be more suitable to a given soil, may be determined with much probability by its tenacity or looseness, moisture or dryness. To employ marls judiciously, therefore, the farmer should be in some degree acquainted with the chemical properties or constituent parts of the marl itself, and with the ingredients of the soil. He may, in general, determine the existence of marl by its falling into powder, when dried, after exposure to moist air. To ascertain the proportion of its ingredients, the calcareous part may be extracted from a given weight of the marl, by solution in acids, and the residue, being dried and weighed, will give the quantity of clay with sufficient accuracy. (See *Manures.*)

Marlowe, Christopher; an eminent English poet and dramatist of the Elizabethan age, was educated at Cambridge, where he proceeded M. A. in 1587. He afterwards settled in London, and became an actor, as well as a writer for the stage. Besides six tragedies of his own composition, and one written in conjunction with Thomas Nashe, he left a translation of the Rape of Helen, by Coluthus; some of Ovid's Elegies; the first book of Lucan's Pharsalia; and the Hero and Leander of Musæus, completed by George Chapman. The exact time of his death is not known; but, according to Anthony Wood, it took place previously to 1593, and was owing to a wound received from the hand of a servant-man, whom he had attacked on suspicion of being rivalled by him in the favors of a mistress.

Marly, Marly-le-Roi, or **Marly-la-Machine**; a village of France, 1¾ league from Versailles, on the edge of the forest of the same name. It still contains some fine country-seats; but the royal castle built by Louis XIV, and the beautiful gardens attached to it, no longer exist, having been destroyed during the revolution. It is now remarkable only for its water-works for supplying Versailles with water. The celebrated machine, which conducted the water over the Seine, having fallen to decay, its place is supplied by a forcing pump, which raises the water 500 feet, and an aqueduct of 36 arches.

Marmont, August Fréderic Louis Viesse de, duke of Ragusa, marshal of France, was born in 1774, at Chatillon on the Seine, of an ancient family. From his 16th year he served in the artillery, and distinguished himself in the revolutionary war, particularly in the campaigns in Italy, so that Napoleon took him to Egypt. He was one of the few who knew of general Bonaparte's intention to return. Marmont supported his general on the 18th Brumaire (q. v.). After having taken part in all the campaigns of Napoleon, he fell into disgrace in consequence of the loss of the battle of Salamanca. Yet, in 1813, he again received a command against the allies. Upon their march to Paris, he was beaten at Fere Champenoise, and concluded, after they had reached the French capital, the armistice and capitulation, March 30, 1814. After this, the sixth *corps d'armée*, under Marmont, formed at Essone the van of Napoleon; but when (April 4) the marshal declared himself for the senate, who had pronounced Napoleon's dethronement, his corps left its position, and the emperor abdicated. After the restoration, the duke of Ragusa was made captain of the king's body guard, and, as such, followed the king (March 20, 1815) to Ghent. Napoleon would not trust him after the capitulation of Paris. It was generally believed, but incorrectly, that Marmont was bribed to capitulate; his conduct, however, cannot escape censure. The duke was made peer of France. In 1826, he was sent as ambassador to the coronation of the emperor Nicholas at Moscow. In 1830, he was appointed to command the king's troops against the people, when a mistaken feeling of honor made him fight for the ministers, whom he abhorred, as M. Arago testified on the trial of the ex-ministers (Oct. 26, 1830).* M. Laffitte's testimony in the same trial (December 16) must also not be overlooked. (For the part which Marmont played during the memorable days of July, 1830, see *France*, division *History of France*.) He left France with Charles X, and went to Vienna, where he still resides, according to the last accounts. He has promised an account of his command during the late revolution.

Marmontel, John Francis; a distinguished French writer, was born in 1723, at Bort, a small town in the Limousin. He was the eldest son of a large family, the offspring of parents in a humble situation of life; but his mother, a woman of sense and attainments much superior to her rank, favored his ardor for mental cultivation; and by her influence he was sent to the Jesuits' college of Mauriac. At the age of 15, his father placed him with a merchant at Clermont; but having expressed his dislike of this occupation, he was enabled to obtain admission into the college of Clermont, where he gradually acquired pupils; and his father soon after dying, he showed the goodness of his heart, by taking upon himself the care of the family. He subsequently engaged as a teacher of philosophy, in a seminary of Bernardines, at Toulouse, and became a distinguished candidate for the prizes at the Floral games, which acquired him the notice of Voltaire, who recommended him to try his fortune at Paris. He accordingly arrived there in 1745, and, after experiencing some vicissitudes, brought out a tragedy in 1748, which at once raised him into competence and celebrity; and, having been recommended to the king's mistress, madame Pompadour, he was appointed secretary of the royal buildings, under her brother, the marquis de Marigny. Having distinguished himself by writing some of his well-known tales, to assist his friend Boissy, then intrusted with the *Mercure de France*, on the death of the latter, it was given to him, and, resigning his post of secretary, he took up his abode with madame Geoffrin. He subsequently lost the *Mercure de France*, by merely repeating, in company, a joke upon the duke d'Aumont, and was committed to the Bastile, because he would not give up the real author. In 1763, after much opposition, he succeeded Marivaux as a member of the French academy. His next literary production was *Bélisaire*, which, in consequence of its liberal sentiments in favor of toleration, was censured by the Sorbonne, and widely read in every country in Europe. In order to benefit Grétry, he worked up several little stories into comic operas, which were all acted with great success. On the death of Duclos, he was appointed historiographer of France. He took part in the celebrated musical dispute between Gluck and Piccini, as a partisan of the latter. In 1783, on the death of D'Alembert, he was elected secretary to the French academy. On the breaking out of the revolution, he retired to a cottage in Normandy, where he passed his time in the education of his children, and the composition of a series of tales of a more serious cast than his former ones ; together with his amusing Memoirs of his own Life. In April, 1797, he was chosen member of the council of elders; but, his election being subsequently declared null, he again retired to his cottage, where he died of an apoplexy, in December, 1799, in the 77th year of his age. Marmontel holds a high place among modern French authors. Warm and eloquent on elevated subjects; easy, lively, inventive and ingenious on light ones, he addresses himself with equal success to the imagination, the judgment and the heart. His *Contes Moraux*, in general, inculcate useful and valuable lessons, but their morality is sometimes questionable. Some of his didactic works in prose, continue to be highly esteemed, and more especially his course of literature inserted in the *Encyclopédie*. Since his death, besides his own memoirs, there have appeared Memoirs of the Regency of the Duke of Orleans (printed from his MS., in 2 vols., 12mo.). The works of Marmontel have been collected into an edition of 32 volumes, octavo.

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* M. Arago also testified on this trial, that he was convinced from the information which he had received from general Foy, colonel Fabvier, and the Prussian general Müffling, that Marmont was not bribed at the time of the capitulation of Paris.

Marmora, Sea of, anciently the Propontis ; a sea between Europe and Asia, about 60 leagues in length, and 20 in its greatest breadth. It communicates to the S. W. with the Archipelago, by the Dardanelles, and with the Black sea to the N. E. by the straits of Constantinople. Constantinople lies on its western shore. The tides are hardly perceptible, the navigation easy. A current sets from the Black sea into the sea of Marmora, which, in turn, runs into the Archipelago.

Marmot (*arctomys*) ; a genus of small quadrupeds, somewhat resembling the rats, with which they were classed by Linnæus. They have two incisors in each jaw, and ten grinders in the upper, and eight in the lower jaw; four toes, and a tubercle in place of a thumb, on the fore feet, and five on the hinder. There are several species, the most striking of which are the Alpine marmot (*A. Alpinus*), about the size of a rabbit, with a short tail; of a grayish-yellow color, approaching to brown towards the head. This species inhabits the mountains of Europe, just below the region of perpetual snow, and feeds on insects, roots and vegetables. When these animals (which live in societies) are eating, they post a sentinel, who gives a shrill whistle on the approach of any danger, when they all retire into their burrows, which are formed in the shape of the letter Y, and well lined with moss and hay. They remain in these retreats, in a torpid state, from the autumn till April. They are easily tamed. The Quebec marmot (*A. empetra*) inhabits the northern part of the American continent. It appears to be a solitary animal, dwells in burrows in the earth, but has the faculty of ascending trees. Its burrows are almost perpendicular, and situated in dry spots, at some distance from the water. When fat, it is sometimes eaten. Its fur is of no value.—Woodchuck (*A. monax*). This species, which is also known by the name of *ground-hog*, is common in all the Middle States, living in societies, and making burrows in the sides of hills, which extend a considerable distance, and terminate in chambers lined with dry grass, leaves, &c. They feed on vegetables, and are very fond of red-clover. They are capable of being tamed, and are very cleanly. The female produces six young at a birth. There are many other marmots inhabiting North America which have been considered as belonging to the sub-genus *spermophilus*. The most celebrated of these is the Prairie dog, or Wistonwish (*A. ludovicianus*). It has received the name of *prairie dog* from a supposed similarity between its warning cry and the barking of a small dog. They live in large communities ; their villages, as they are termed by the hunters, sometimes being many miles in extent. The entrance to each burrow is at the summit of the mound of earth thrown up, during the progress of the excavation below. The hole descends vertically to the depth of one or two feet, after which it continues in an oblique direction. This marmot, like the rest of the species, becomes torpid during the winter, and, to protect itself against the rigor of the season, stops the mouth of its hole, and constructs a neat globular cell at the bottom of it, of fine dry grass, so compactly put together, that it might be rolled along the ground almost without injury. The other American species of this subgenus are, *Parryi guttatus*, *Richardsoni*, *Franklini*, *Beecheyi*, *Douglasi*, *lateralis*, *Hoodi*. (See Richardson, *Faun. Am. Bor.* and Godman's *Nat. Hist.*)

Marne, a river of France, rises near Langres, runs about 220 miles, and enters the Seine a few miles above Paris.

Marocco. (See *Morocco.*)

Maronites; a sect of Eastern Christians, whose origin was a consequence of the Monothelitic controversy. In the seventh century, the opinion that Christ, though he united in himself the divine and human nature, had but one will (Monothelitism), arose among the Eastern nations, and was supported by several emperors, particularly Heraclius. But when their last patron, the emperor Philip Bardanes, died, in 713, the Monothelites were condemned and banished by his successor, Anastasius. The remnant of this party survived in the *Maronites*, so named from their founder Maron—a society of monks in Syria, about mount Lebanon, which is mentioned as early as the sixth century. Another monk, John Maro, or Marum, also preached Monothelitism there in the seventh century. Regarded as rebels by the Melchites, or Christians who adhered to the opinions of the emperor, they became, in the country of Lebanon, which is now called *Kesruan*, a warlike mountain people, who defended their political as well as their religious independence boldly against the Mohammedans, and who, even now, under the Turkish government, resist the payment of a tribute, like the Druses. The political constitution of the Maronites is that of a military commonwealth. Governed by their ancient customary rights, defended from external attacks, they support themselves, among the mountains, by husbandry and the produce of their vineyards and mulberry-trees. A common spirit unites them. In simplicity of manners, temperance and hospitality, they resemble the ancient Arabians. Revenge for murder is permitted among them, and, as a sign of nobility, they wear the green turban. Their church constitution resembles very much that of the old Greek church. Since the twelfth century, they have several times submitted to the pope, and joined the Roman Catholic church, without giving up their own peculiarities. At last, Clement XII induced them to accept the decrees of the council of Trent, at a synod held in 1736, at their convent of Marhanna. Till that time, they had received the sacrament under both forms. After this synod, their priests still retained the right to marry, after the manner of the Greek church. The use of the Arabic language was preserved in the church service. Mass, only, was read in the ancient Syriac. Their head is called the *patriarch of Antioch*, although his residence is in the monastery of Kanobin, upon mount Lebanon, and he gives an account, every 10 years, to the pope, of the condition of the Maronite church. Under him are the bishops and other clergymen, who form seven degrees of rank. In Kesruan are over 200 Maronite convents and nunneries, which profess the rule of St. Antony, and devote themselves to agriculture and gardening. Since 1548, there has been a Maronite college established at Rome, for the education of clergymen; yet neither this establishment, nor the mission of papal nuncios, has effected an entire incorporation of this sect with the Romish church; and those in Kesruan, as well as the large numbers in Aleppo, Damascus, Tripoli, and upon Cyprus, still retain their ancient habits, and some even their ancient liturgy.

Maroons; the name given to revolted negroes in the West Indies and in some parts of South America. The appellation is supposed to be derived from Marony, a river separating Dutch and French Guiana, where large numbers of these fugitives resided. In many cases, by taking to the forests and mountains, they have rendered themselves formidable to the colonies, and sustained a long and brave resistance against the whites. When Jamaica was conquered by the English, in 1655, about 1500 slaves retreated to the mountains, and were called *Maroons*. They continued to harass the island till the end of the last century, when they were reduced, by the aid of blood-hounds. (See Dallas's *History of the Maroons*.)

Marot, Clément, a French epigrammatist and writer of light lyrical pieces, from whom the French date the beginning of their poetry, born at Cahors, 1505, went to Paris as page of Margaret of France, duchess of Alençon, whose brother, Francis I, he afterwards accompanied to the Netherlands. His amour with the beautiful Diana of Poitiers is well known. In 1525, having followed the king to Italy, he was wounded and made prisoner in the battle of Pavia. After his return to Paris, he was suspected of being favorable to Calvinism, and was thrown into prison. His time, during his confinement, was spent in preparing a modernized edition of the Romance of the Rose, and the king finally set him at liberty. His connexion with Margaret, now queen of Navarre, with whom he had quarrelled, was renewed, but could not protect him from new difficulties on account of his religious sentiments, and he fled to Italy, and thence to Geneva (1543), where Calvin succeeded in making him a proselyte to the new doctrines. He soon recanted his profession of faith, returned to Paris, and, not long after, again fled to Turin, where he died in 1544. Marot had an agreeable and fertile fancy, a lively wit, with a certain levity of character. All his poems, even his translation of the Psalms, made in conjunction with Beza, and for a long time used in the Protestant churches in France, are in an epigrammatic manner. Nature and *naïveté* are the characteristics of his style, called, by the French, *style Marotique*. His works have been repeatedly printed, with those of his father, John, and his son, Michael. They appeared by themselves (Paris, 1824), with his life and a glossary.

Marpurg, Frederic William, a German musician of eminence, born at Seehausen, in the Prussian dominions, in 1718. He passed some portion of his youthful years in the French metropolis, and, on his return to his native country, acted in the capacity of secretary to one of the ministers at Berlin, in which capital he was afterwards placed by the government at the head of the lottery department. He was the author of many valuable works connected with the science of music, especially of a history of the organ, from the earliest antiquity, replete with information, but which he, unfortunately, did not live entirely to complete. Among his numerous writings are the Art of Playing on the Harpsichord; a Treatise on Fugue (Berlin), considered by Kollman to be the most profound and masterly work of the kind in the German language; Historical and Critical Memoirs to promote the Study of Musical History, a periodical work, filling five octavo volumes; a Manual of Thorough Bass and Composition; Elements of the Theory of Music; Introduction to the Art of Singing; Introduction to the History and Principles of Ancient and Modern Music; Critical Letters on Music (2 vols.); Essay on Musical Temperament; besides a vast number of single songs, odes, &c. His death took place at Berlin, from a consumption, in 1795.

Marque, Letter of. (See *Letter of Mart.*)

Marquesas, Marquis of Mendoza's Islands, or Mendoca Islands; a cluster of five islands in the South Pacific ocean, first discovered by Mendoc, a Spaniard, in 1597, and visited by captain Cook, in 1774. The trees, plants, and other productions of these isles, are nearly the same as at Otaheite and the Society isles. The refreshments to be got are hogs, fowls, plantains, yams, and some other roots; likewise bread-fruit and cocoa-nuts; but of these, not many. The inhabitants are the finest race of people in this sea. The affinity of their language to that spoken in Otaheite and the Society isles, shows that they are of the same nation. The men are punctured, or tattooed from head to foot. Lieutenant Paulding, in his account of the cruise of the U. States' schooner Dolphin among the islands of the Pacific ocean (New York, 1831), says, "The men of the Marquesas were in general quite naked; but few ornaments were worn by either sex. A few were tattooed all over; others but slightly. Some had pricked into their flesh, fish, birds, and beasts, of all kinds known to them. Others were tattooed black, even to the inner part of their lips. There are men who pursue tattooing as a regular business. The men are finely formed, large and active. Their teeth are very beautiful. A plurality of wives is not admitted among them. The only arms now generally used are muskets." Population of the group, vaguely estimated at 50,000. Lon. 138° 45′ to 140° 30′ W.; lat. 8° 30′ to 10° 30′ S.

Marquetry (French, *marqueterie*, *marqueter*, to inlay); inlaid cabinet work, in which thin slices of different colored wood, sometimes of ivory, pearl, shell, or metal, are inlaid on a ground. Works in which black and white only are employed, are called *Morescoes*. Marquetry in glass, precious stones, or marble, is more commonly called *Mosaic*. (q. v.).

Marquette, Joseph, a French Jesuit and missionary in North America, after having visited the greater part of Canada, was sent, by the French authorities, in company with Joliette, to examine the situation and course of the Mississippi. Marquette and his party (1673) ascended the Outagamis from lake Michigan, and, descending the Wisconsin, reached the Mississippi, and proceeded as far as the mouth of the Arkansas. Their voyage left little room to doubt that it emptied into the gulf of Mexico, and, not thinking it prudent to continue their course, they returned to lake Michigan, by the Illinois. Marquette remained among the Miamis till his death, in 1675. This event caused his discoveries to be lost sight of until they were again brought into notice by La Salle. (q. v.) Marquette's relation was published by Thévenot (1681), in a supplement to his *Recueil de Voyages*.

Marquis, Marquess (in middle Latin, *marchio;* Italian, *marchese;* French, *marquis;* German, *markgraf*); a title of honor, next in dignity to that of duke, first given to those who commanded the marches. (q. v.). Marquises were not known in England, till king Richard II, in the year 1337, created his great favorite, Robert Vere, the earl of Oxford, marquis of Dublin. The title given a marquis, in the style of the heralds, is *most noble and potent prince.*

Marriage. (For the legal relation between husband and wife, in modern civilized countries, especially England and the U. States, see the article *Husband and Wife.*) No social relation is more universally established than matrimony, resting, as it does, on the fundamental principles of our being, and giving rise to the primary element of all social order and civilization—the domestic connexions. Misguided philosophers and fanatic sects have, indeed, at different times, preached against it, and even suspended its exercise, in a limited circle, for a limited time; but such a violation of the order of nature was necessarily brief. As marriage is a connexion existing in all ages, and probably in all nations, though with very different degrees of strictness, it constitutes one of the most interesting phenomena for the inquirer into the various manifestations and different developements of the common principles of our nature. In almost all nations, the day of marriage is celebrated with religious ceremonies. Nothing is more natural than to pray for the blessing of Heaven on such a union, and the prayer of a priest is generally esteemed, in the early ages of nations, as most efficacious. With the most ancient inhabitants of the East, the bride was obtained by presents made, or services rendered, to her parents. (See *Jacob.*) To this day the same practice prevails among the Circassians, and the poorer Turks and Chinese. Respecting the customs of the ancient Persians, Babylonians, Indians, and other inhabitants of Asia, the ancient writers have left us little or no information. It is only known that polygamy was customary with them. The women lived in harems, yet they were probably not so restricted as at present; at least, it was customary for every woman in Babylon, once in her life, to give herself up to any stranger, in the temple of the goddess of love. In Syria and the other countries of Western Asia, girls served, for several years, in the temple of the Asiatic Aphrodite, and bestowed their favors on the visitors of the temple. In India, and other countries of Upper Asia, the first enjoyment of a woman, immediately after marriage, belonged to the Bramins. This connexion with the priests was even sought for with prayers and gifts. Whether the Egyptians practised polygamy is uncertain. Diodorus maintains that it existed among all the castes except the priests; Herodotus denies it. A curious custom existed in Assyria (according to Mela, also in Thrace) the marriageable girls were sold by public auction, and the money thus received furnished marriage portions for those whose charms were not sufficient to attract purchasers. With the ancient Hebrews, the wedding followed 10 or 12 months after the betrothment, and was called *mishteh* (i. e. festival meal). From the time of Moses, polygamy was prohibited; and, if Solomon and others took several wives, they rendered themselves guilty of a violation of the laws, particularly if these wives were foreigners. The Hebrews married, as the Jews even now do, very young. On the day of the wedding, the bridegroom proceeded, anointed and ornamented, accompanied by a friend (*paranymph*), and followed by several companions, into the house of the bride, and conducted her, veiled, and followed by her companions, with song and music (at a later period also with torches), into his or his father's house, where the wedding feast was celebrated at his expense (generally for seven days; if a widow was married, only for three), at which the bridegroom appeared with a crown; the bride, likewise, wore a high golden crown, resembling the pinnacle of a wall (see Hirt, *De Coronis ap. Hebr. Nupt.*, Jena, 1740, 4to.), and the conversation was enlivened by songs and enigmas.—See Zorn, *De Carm. vet. Hebr. Nupt.* (Hamburg, 1722, 4to.) The duty of the *paranymph* was, to play the part of the host in the room of the bridegroom, and to do as he ordered him (*John* iii. 29; ii. 9; *Judges* xiv. 20). Men and women took their meals separately, and had also their separate entertainments. The nuptial formality seems to have consisted in pronouncing a blessing over the couple

After the wedding meal, the bridegroom and bride were led, yet still veiled, into the bridal chamber, where the bridemaids accompanied them with torches and song; hence the parable of the ten virgins, who took their lamps in order to meet the bridegroom. If the examination made by matrons the next day led to the conclusion that the wife had not been previously chaste, she was stoned.—Compare Hirt, *De Nuptiis Hebr.* (Jena, 1754, 4to.) The wedding ceremonies of the modern Jews deviate considerably from those of their forefathers. The rabbies, indeed, maintain that they follow strictly the ceremonies observed at the wedding of Tobias, though the Bible says nothing of the greater part of them. The Jews marry very young, and hold it a direct sin against the commandment to "be fruitful and multiply," if they are not married in their 18th year. Marriage is permitted to males at the age of 13 years and 1 day, if they appear to have reached the age of puberty. Girls may marry at the age of 12 years and 1 day, under the same condition. If the signs of maturity are wanting, or evident impotence exists, Jews are not permitted to marry until the 35th year. Barrenness is esteemed a great misfortune with them, as with the Arabians, and most, perhaps all, Oriental nations, and perhaps we might say, all nations living in a state in which the natural feelings are unchecked. After the suitor has obtained the consent of the girl and her guardians, the betrothment takes place with certain ceremonies. The bridegroom pays (or, at least, formerly paid) a *morning gift*, so called—a remnant of the custom of buying the daughter from the father. The wedding is not allowed to take place on Saturday (Sabbath), and was usually performed on Wednesdays, because Thursday was a day of justice, and the husband would immediately go to court, and ask for a divorce, in case the signs of virginity had been wanting. At present, the marriage takes place sometimes on Friday. The eve before the wedding, the bride goes into the bath, accompanied by her female friends, who make a great noise. The ceremony of wedding generally takes place in the open air, seldom in a room. The couple sit under a canopy, generally carried by four boys. A large black veil covers both, besides which, each of them has a black cloth (*taled*), with tassels at the four corners, upon the head. The rabbi, the precentor of the synagogue, or the nearest relation of the bridegroom, offers to the couple a cup of wine, and says, "Praised be thou, O God, that thou hast created man and woman, and hast ordained matrimony." Both drink. The bridegroom then puts a gold ring, without a stone, on the finger of the bride, and says, "With this ring I take thee as my wedded wife, according to the custom of Moses and the Israelites." Then the matrimonial contract is read (see *Jewish Law*), and the bridegroom shakes hands with the parents of the bride. Wine is brought once more, in a vessel easily to be broken; six prayers are spoken; the couple drink of the wine, and the cup is thrown violently to the ground, according to some, in remembrance of the destruction of Jerusalem; according to others, to admonish the company to orderly behavior. The company then proceeds into the dwelling of the bridegroom, where they sit down to dinner, and he chants a long prayer. After the meal, men and women perform a certain dance, each sex separate. In presence of ten persons of advanced age, another prayer is pronounced over the bride, and she is led into the bridal chamber, from which moment the marriage is considered to be complete. Of the multifarious ceremonies accompanying the wedding, with the latter Greeks, the germs are to be found as early as the time of Homer, viz. the leading of the bride veiled to the shoulders, from the house of her father to that of her husband, with torches, the singing of joyous songs, playing on the flute and harp, dancing, bathing of the bride, ornamenting her, conducting of the couple to their apartment by the *thalamepolos*, a female guardian of the bride chamber. At later periods, the ceremonies of the festival were more extended. The day before the wedding, which was celebrated particularly in the month Gamelion, or on the fourth day of each month, the betrothed parties each cut off a lock of hair, and dedicated it to all the patron gods of matrimony (Jupiter, Juno, Diana, the Fates); the bile of the victims was thrown away; the entrails were observed. The ceremonies were, properly speaking, nothing but a mimic repetition of the first marriage of the gods (*gamos hieros*). On the day of the wedding, the couple put on wreaths of flowers or leaves, sacred to Venus, or having some other relation to marriage. The house was also ornamented with wreaths. Towards evening, the bridegroom took the bride from her father's house, generally in a chariot, accompanied by a *paranymphos*. If he had been already married, the *paranymphos* alone conducted her, and was then called *nymphagogos.* The bride (who carried a vessel containing barley, and called *phrygetron*) was preceded by torch-bearers, music and song, also by females who carried symbols of domestic life, as a sieve, a spindle, &c. When the couple arrived at home, fruits were poured over them, as a symbol of plenty; the axle of the vehicle in which they had ridden was burnt, to indicate that the bride could not return, after which the meal followed, in apartments adorned for the occasion, for which friends and relations assembled, dressed in festival dresses. In Athens, a boy appeared during the meal, crowned with thorns and acorns, holding a basket, which contained bread, and calling out, "I left the bad and found the better" (ἔφυγον κακὸν, εὗρον αμεινον)—an allusion to the life of the primitive inhabitants of Attica, without bread and matrimony. Dances and songs diverted the guests. After the dance, followed the procession into the bride chamber, where the bed was generally covered with a purple cloth, and strewed with flowers. Another bed was also placed in the same room, for the bridegroom, in case evil omens should prevent the consummation of the marriage. Here the bride washed her feet (in Athens, in water from the fountain Callirrhoë), served by the *luthrophoros* (a boy, always the nearest relative). In Athens, the pair also ate a quince, probably in allusion to Proserpine. The bride was now placed in the bed by her nearest relatives, particularly by the mother of the bride, who wound the fillets of her own hair round the torch, and, whilst the bridegroom unloosed the zone of the bride, which was consecrated to Minerva or Diana, boys and girls danced before the door, stamping and singing songs (*epithalamia*, choruses, praises of the young couple, good wishes, &c.—See Theocrytus, 18th idyl.) A *thyroros* (door-keeper) prevented the women from entering to assist the bride. The next morning, the same boys and girls sung *epithalamia egertica* (awakening songs). The festival lasted for several days, each having its proper name. Very different from all this was the custom of the Lacedæmonians. They retained the ancient form of carrying off the bride by force. After the bridegroom had carried off the girl, a female paranymph cut the hair of the bride, put on her a male dress, seated her in a dark room, upon a carpet; the bridegroom then came clandestinely, unbound the zone, placed the bride upon the bed, and, soon after, stole away to the common sleeping room of the youths, and repeated these visits several times before the marriage was made known. After this, the solemn conducting home of the bride, accompanied by sacrifices, took place. The Romans had, in a legal sense, three different ways of concluding a marriage—*coëmtio*, *confarreatio*, and *usus*—of which the *confarreatio* was the most solemn and most conclusive. At the betrothment (*sponsalia*), the day of marriage was settled, great care being taken not to fix upon one of the *atri dies* (unlucky days), viz. the month of May, the calends, nones and ides, and the days following them, the feast of the Salians, the *parentalia*, &c. On the other hand, a peculiar predilection was entertained for the second half of June. The day before the wedding, the bride sacrificed the virgin-like *toga prætexta* to the *Fortuna virginalis;* her *bulla aurea*, her *strophia* and toys to the *Lar familiaris*, or to Venus, after she had first sacrificed to *Juno jugo*, the goddess of marriages, and after her hair had been divided with a lance (*cœlibaris*) into six locks (in allusion to the rape of the Sabines), and arranged according to the fashion of matrons. On the day of the wedding, the bride was ornamented. She covered her hair with the *vitta recta*, put on a wreath of flowers, the tunic of matrons, and encircled her waist with a woollen zone, tied in a *Hercules knot* (so called), at which moment she implored the *Juno cinxia.* A red or fire-colored veil now covered her face (allusion to bashfulness); shoes of a like color were put on. After the auspices were taken, and sacrifices had been offered to the gods of matrimony, particularly to Juno, the bile being thrown away, the couple seated themselves upon the fleece of the victim, in allusion to the original dress of men, and to the domestic duties of the wife. In the evening, the bride was led home by the bridegroom. The bride rested in the arms of her mother, or one of the next relatives, and the bridegroom carried her off, in allusion to the rape of the Sabines. The bride was led by boys; others preceded her, bearing torches. The bride (or female slaves) carried distaffs, wool, &c. The music of the lyre and the flute accompanied the procession, during which the bridegroom threw walnuts among the people. The bride was lifted, or stepped gently over the threshold of her parents' house, and of that where she entered, this part of the dwelling being sacred to Vesta, the protectress of virgins. These thresholds were ornamented with flowers, &c. She was followed, or, according to some, preceded by the boy Camillus.[*] Relations and friends accompanied the procession, where jokes and merriment abounded. Arrived at her new house, she hung woollen bands, as signs of chastity, at the door-posts, and rubbed the posts with the fat of hogs and wolves, to guard against enchantment. Her first step in the house was made on a fleece (symbol of domestic industry). The keys were handed over to her, and both she and the bridegroom touched fire and water, as signs of chastity and purity. With the water the feet were washed. In the times of the republic, the bride carried three pieces of the coin called *as*. One she held in her hand, and gave to the bridegroom, as if purchasing him; another, lying in her shoe, she put on the hearth of the new house; the third, which she had in a pocket, she put on a cross-way. After some more ceremonies, followed the wedding meal, accompanied by *epithalamia*. The bride was then conducted by matrons, only once married (*pronubæ*), into the nuptial chamber (*thalamus*), and laid on the bed (*genialis lectus*). Virgins now sung *epithalamia*, in praise of the couple, and, in order not to excite Nemesis by such praises, boys used to sing indecorous songs. After the husband had given another feast (*repotia*), the wife entered on her new duties.—Of the marriage rites of the ancient Celtic and German tribes, as little is known as of the ancient Asiatic tribes; and, in the little which is recorded, the ancient authors contradict each other. They are almost unanimous, however, in stating that the ceremony of buying the wife was customary with them; but it is doubtful whether polygamy existed among them or not. Cæsar says it prevailed among the Britons; others say the same of the inhabitants of Spain. The Germans and Gauls seem to have had, generally, but one wife; yet exceptions are known (for instance, Ariovistus). According to the historian Adam, of Bremen, polygamy was common with the ancient Saxons and people of Ditmarsh. Among the ancient Germans, the marriage of a free person with a slave was punished. If a slave had seduced a free girl, he was beheaded, and she burnt. They married late: marriage was prohibited before the 20th year. The suitor paid a price to the father of the girl, from which, afterwards, the *morning gift*, so called, originated. If a girl was betrothed, she was watched by the friends of the wooer; if the latter delayed the marriage longer than two years, the engagement was dissolved. After marriage, the wife was inseparable from the husband: she followed him to the chase, in war, &c., and often betrayed herself when the husband had fallen. Divorce was very rare; violation of matrimony was punished by death. The Mohammedans consider matrimony as a mere civil contract. They practise polygamy. The Mohammedans may have four regularly married wives; they may, besides, purchase concubines (generally Circassian and other slaves); they have, also, hired wives, whose obligation to live with a man lasts only for a certain time. Generally, the Mohammedans have but one wife; the wealthier sort have two; the very rich, still more. With the Turks, the marriage is concluded upon between the parents, and at the most, the contract is only confirmed before the cadi. Generally, the bridegroom has to buy the bride; most commonly, they do not see each other before marriage. The bride is conducted on horseback, closely veiled, to the bridegroom. Entertainments follow, and, in the evening, the bride is led, by a eunuch (or, with the poorer classes, by a maid servant), into the bride chamber. It is a real misfortune for a Turk to be obliged to marry a daughter of the sultan. He prescribes the present to be made to his daughter; the husband is obliged to follow her will in all things. He must give so many presents, that he is frequently ruined. In Arabia, if a young man is pleased with the appearance of a girl in the street, where the women appear always veiled, he endeavors to get a sight of her face, by procuring admission into a house where she frequently comes, and remaining concealed there by the aid of some kind relatives. If he is pleased, he makes a bargain with the father; the contract is signed before the sheik. After several ceremonies, baths, entertainments, &c., the Arab awaits his bride in his tent. Matrons conduct her there, where the bride bows, and receives a gold piece pressed on her forehead. She is then carried by him into the interior of the tent. The bride and other women dance around it all night. In Barbary, the marriage contract is concluded with the father or some relation, or, in default of them, with the cadi, a price paid for the bride, and a sum assigned for her support in case of divorce. The evening before the marriage, the bridegroom proceeds, on horseback, accompanied by many friends, to the house of the bride. The bride is then carried on a mule, covered with a sort of box (or, among the wealthier classes, on a camel, bearing a sort of tent), to the house of the bridegroom. The bridegroom and his friends accompany her, the latter expressing their joy by the discharge of fire-arms. The bride is then conducted to the bridegroom, in a dark apartment, and it is not till after the completion of the marriage that he obtains a sight of her face. He cannot go out of the house for eight days; she, not for two months. Formerly the bridegroom, at the end of the eight days, played the king, and decided a number of petty disputes; but since the middle of the eighteenth century, when the emperor of Morocco had eight of such kings tied to the tails of mules and dragged to death, this custom has ceased. The wedding ceremonies, among the Mohammedans in Hindostan, are similar, only the procession is accompanied by music and song. With the Persians, the bridal purchase-money is agreed upon by the bridegroom and the father of the bride; this is either left to the father, or given to the bride in case of divorce. The contract is signed before a cadi, in a solitary place, so that enchanters may not deprive the bridegroom of his vigor. As it is considered, with all the Mohammedans, a matter of the greatest importance to find the signs of maidenhood in the bride, and as the whole relation between the two sexes is such as not to enable the bridegroom to take the bride's virtue upon trust, it is often made a point of the marriage contract, that the marriage shall be null if satisfaction is not received on this point. So much attention is paid to this subject, that, in case an accidental injury, as by a fall from a camel, &c., might bring it in question, fathers not unfrequently have an attested record made of the cause of the accident. The Circassians, who sell their daughters to the Turks, use mechanical means to prevent the loss of their virginity, from the age of puberty. With the heathen Hindoos, any one who marries out of his caste, loses its privileges, and becomes little better than a Paria. (q. v.) The Hindoos marry their children very early, often in the seventh year. When the marriage is agreed on, gifts are sent, with song and music, to the bride. Similar ones are returned to the bridegroom. On the day before the marriage, the bridegroom, adorned with a crown and flowers, proceeds through the city, accompanied by music, and attended by the young men of his own occupation, in palanquins, carriages, and on horseback. The bride does the same, on the day of the wedding, attended by her young female acquaintance. In the evening, the wedding takes place. A fire is lighted between the couple, a silk cord wound round them, and a kerchief, folded up, is placed between them, after which the Bramin pronounces a certain formula, the purport of which is, that the husband ought to give sufficient support to the wife, and that she ought to be faithful: the blessing follows. The Buddha religion prescribes other ceremonies and rules. In Pegu, the women are bought, and generally only for a certain time. In Siam, the husband may have, besides the legitimate wife, others, whose children, however, are not legal, and are sold as slaves. In China, the wife is bought; poor people ask wives from the foundling houses. The young couple do not see each other before the contracts are exchanged. The bride is then conveyed, with music, torches, &c., to the husband. She is carried in a chair, securely enclosed, the key to which is given, on her arrival, to the bridegroom. Here he sees her for the first time. Formerly, the wife was sent back immediately, but at present this is generally prevented by the contract; the relations also contrive to get a pretty accurate description of the bride beforehand. The bride is then led into the house, where she bows low before the family idol. Entertainments then follow, each sex being separate. After marriage, the wife sees only the husband, and, on particular occasions, the father or some other relative, unless express provision is made for more liberty in the contract. In Japan, the bridegroom awaits the bride in the temple of Fo, where the *bonze* blesses them, during which ceremony the couple bear a torch or lamp. The festival then lasts for seven or eight days. The Parsees, or worshippers of fire, consider matrimony a holy state, conducive to eternal felicity, and betroth children very young. Matrimony between cousins is most esteemed. Betrothment is, with them, a ceremony entirely binding. At the wedding, the priest asks the parties whether each will have the other; if they say yes, he joins their hands and strews rice over them. Weddings among them are celebrated with much public festivity. Among the Indians of North America, the weddings are very simple.—See *Tales of the North-West* (Boston, 1830); also, the article *Indians.*—Among Christians, marriages, of late, are celebrated with much less ceremony than formerly. In England, among the wealthier classes, it is customary for the couple to go, in a morning dress, to church, and, immediately after the marriage, to set out on a journey. With the Catholics, matrimony is a sacrament, and dissolvable by the pope only. With Protestants, this is not the case. In the U. States, matrimony in the eye of the law is a mere civil act; justices of the peace may perform the ceremony; yet such instances are rare. Marriages concluded by clergymen simply are valid also, and, in so far, the law differs from that in the former French republic and empire, where the contract, in the presence of the civil officer, could not be omitted.

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[*] His office was to carry the bride's ornaments, and the amulets for the future offspring, in a small box.

Marrow. (See *Bone*, and *Medulla.*)

Mars, mademoiselle Hyppolite-Boutet, the most eminent of the French actresses, was born in 1778, and is the daughter of Monvel, an actor of great celebrity. In giving her instructions, her father had the judgment and good taste not to make her a mere creature of art. On the contrary, he taught her that much ought to be left to the inspiration of natural feelings, and that art ought only to second, and not supersede, nature. She first came out in 1793, on the Montansier theatre, and at length was received at the *Théâtre François.* Her original cast of parts consisted of those which the French denominate *ingénues*—parts in which youthful innocence and simplicity are represented. These she performed for many years with extraordinary applause. At length she resolved to shine in a diametrically opposite kind of acting; that of the higher class of coquettes. In accomplishing this, she had to encounter a violent opposition from mademoiselle Leverd, who was already in possession of the department; for, in France, each actor has an exclusive right to a certain species of character. Mademoiselle Mars, however, succeeded in breaking through this rule; and, in the coquette, she charmed fully as much as she had before done in the child of nature. In comedy, she is what mademoiselle George is in tragedy. She charms foreigners no less than she does her own countrymen. Mr. Alison, the son of the author of the Essay on Taste, speaks of her as being "probably as perfect an actress in comedy as ever appeared on any stage. She has (he says) united every advantage of countenance, and voice, and figure, which it is possible to conceive." Mademoiselle Mars has been very beautiful. At Lyons, she was crowned publicly, in the theatre, with a garland of flowers, and a *fête* was celebrated in honor of her, by the public bodies and authorities of the town.

Mars, Mavors (with the Greeks *Ares*); the god of war. According to the oldest poets, he was the son of Jupiter and Juno; according to later ones, of Juno alone, and the fiercest of all the gods. Ares or Mars is, originally, a Pelasgian deity, whose worship was first celebrated in Thrace, and afterwards transferred to Greece. In the earliest times he was the symbol of divine power, and with the Greeks, the symbol of war, so far as regards strength, bravery and fierceness, or, in other words, was the god of battles. Minerva, on the contrary, as the goddess of war, was the symbol of courage joined with wisdom and military art. In later times, he is always represented in the human form, and is the protector of innocence. The Romans early adopted his worship from the Greeks. According to tradition, Romulus and Remus, the founders of Rome, were the fruit of his intercourse with Rhea Sylvia. Several temples in Rome and the Campus Martius (q. v.) were dedicated to him. His service was celebrated by particular *flamines* devoted to him, and by the college of the Salii (q. v.), whose duty it was to preserve his shield (*ancile*), said to have fallen from heaven. The month of March was sacred to him, and his festivals were celebrated on the 1st of March and 12th of October. He was likewise the god of spring. Among the Romans, soldiers and gladiators, and fire, were sacred to him; also horses, birds of prey, vultures, cocks, woodpeckers and wolves; the *suovetaurilia* (q. v.) were also in honor of him. In peace, they called him *Quirinus;* in war, *Gradivus* (the striding). They considered Bellona as his wife and sister. The Greeks, on the other hand, assigned him no wife, although he had children by Venus and several other mistresses. His intrigue with the former was betrayed to Vulcan by Sol. Vulcan immediately made a fine iron net, which he threw over the two lovers, whom he found in bed together: he then called together all the gods, and exposed his captives to the scorn of Olympus. He was the father of Harmonia, by Venus; Deimos (*Terror*) and Phobos (*Fear*) were his sons. Simonides also calls Cupid the son of Mars and Venus. Phobos is his constant companion in war; Phobos and Deimos harness the steeds to his chariot, and guide him to the fight. Enyo, the destroyer of cities (Bellona), and Eris, always hover around him in battle. The fables relate many of his exploits. He is mentioned in the account of the war of the giants only by the later poets. According to Claudian, he was the first who attacked the giants: he slew Pelorus and Mimas. But he was compelled to flee, with the other gods, before Typhœus, and, to escape his fury, changed himself into a fish. In the fight with Otus and Ephialtes, the sons of Aloëus, he was taken and confined in a brazen prison, where he languished 13 months. But the mother of the Aloides discovered the place of his confinement to Mercury, by whom he was delivered. He twice engaged in combat with Hercules, for the protection of his sons. In one of the combats, the god was wounded; in the other, Jupiter separated the combatants by hurling his thunderbolts between them. Mars having slain Halirrhotius, the son of Neptune and the nymph Euryte, for offering violence to his daughter Alcippe, Neptune accused him before the twelve gods, who judged the cause on a hill near Athens (Areopagus, Mars' hill), and acquitted him. As Mars was the first who was tried in this place, it derived its name from that circumstance. In the Trojan war, he assisted the Trojans against the Greeks. Diomedes wounded him, and he bellowed like 10,000 men united. He fought also against Minerva, and hurled his spear against her ægis: she smote him to the ground with a rock. Mars is represented as a young warrior in full armor, of a strong frame, broad forehead, sunken eyes, thick and short hair. His attributes are a helmet, a spear, a sword and a shield.—*Mars* is also the name of a planet. (See *Planets.*) In chemistry, *Mars* was formerly put for iron; in both cases, it is marked by this sign: ♂.

Mars' Hill. (See *Areopagus.*)

Marsden, William, born in 1754, at Verval, in Ireland, was sent out, early in life, as a writer, to the island of Sumatra, where he rose to be chief, and gained much information respecting the language, manners and antiquities of the Oriental archipelago, a part of which he has communicated in articles sent by him to the royal and antiquarian societies. The chief of these are, On a Phenomenon observed in the Island of Sumatra; Remarks on the Sumatran Language; Observations on the Language of the People commonly called Gipsies; On the Hejira of the Mohammedans; On the Chronology of the Hindoos; and On the Traces of the Hindoo Language and Literature, extant among the Malays. His separate publications are, the History of Sumatra (1802); a Dictionary of the Malayan Language (1812); and a Grammar of the Malayan Language; to which is prefixed an interesting Discourse on the History, Religion and Antiquities of the Oriental Islands.

Marseillaise Hymn, the celebrated song of the patriots and warriors of the French revolution, was composed by M. Joseph Rouget de l' Isle, while an officer in the engineer corps at Strasburg, early in the French revolution, with a view of supplanting the vulgar songs then in vogue, relative to the struggle then going on. He composed the song and the music in one night. It was at first called *L'Offrande à la Liberté*, but subsequently received its present name, because it was first publicly sung by the Marseilles confederates in 1792. It became the national song of the French patriots and warriors, and was famous through Europe and America. The tune is peculiarly exciting. It was suppressed, of course, under the empire and the Bourbons; but the revolution of 1830 called it up anew, and it has since become again the national song of the French patriots. The king of the French has bestowed on its composer, who was about 70 years old at the time of the last revolution, having been born in 1760, a pension of 1500 francs from his private purse. M. Rouget de l' Isle had been wounded at Quiberon, and persecuted by the terrorists, from whom he had escaped by flying to Germany. The celebrity of the Marseillaise hymn, the important influence which it has exerted, and the new interest which it has lately acquired, induce us to give it at length.

Allons, enfans de la patrie:
Le jour de gloire est arrivé:
Contre nous de la tyrannie
L'étendard sanglant est levé.
Entendez-vous dans les campagnes
Mugir ces féroces soldats?
Ils viennent jusques dans vos bras
Egorger vos fils, vos compagnes.
Aux armes, citoyens, formez vos bataillons;
Marchez,—qu'un sang impur abreuve vos sillons

CHŒUR.

Aux armes, citoyens; formons nos bataillons;
Marchons;—qu'un sang impur abreuve nos sillons.

Que veut cette horde d'esclaves,
De traîtres, de rois conjurés?
Pour qui ces ignobles entraves,
Ces fers dès long-tems préparés?—
Français, pour nous, ah! quel outrage
Quels transports il doit exciter!
C'est nous qu'on ose menacer
De rendre à l'antique esclavage!
Aux armes, &c.

Quoi ! des cohortes étrangères
Feraient la loi dans nos foyers !
Quoi ! ces phalanges mercenaires
Terrasseraient nos fiers guerriers !—
Grand Dieu ! par des mains enchaînées
Nos fronts sous le joug se plieraient !
De vils despotes deviendraient
Les maîtres de nos destinées !
Aux armes, &c.

Tremblez, tyrans ! et vous, perfides !
L'opprobre de tous les partis ;
Tremblez....vos projets parricides
Vont enfin recevoir leur prix.
Tout est soldat pour vous combattre :
S'ils tombent, nos jeunes héros,
La France en produit de nouveaux,
Contre vous tous prêts à se battre.
Aux armes, &c.

Français, en guerriers magnanimes,
Portez ou retenez vos coups ;
Epargnez les tristes victimes
A regret s'armant contre vous ;—
Mais ces despotes sanguinaires,
Mais les complices de Bouillé.....
Tous ces tigres qui, sans pitié,
Déchirent le sein de leur mère !....
Aux armes, &c.

Amour sacré de la patrie,
Conduis, soutiens nos bras vengeurs :
Liberté, Liberté chérie,
Combats avec tes défenseurs.
Sous nos drapeaux, que la victoire
Accoure à tes mâles accens ;
Que tes ennemis expirans,
Voient ta triomphe et notre gloire.
Aux armes, &c.

Marseilles (properly *Marseille*), the ancient Massilia ; a city of France, capital of the department Bouches du Rhône, on the Lion's gulf ; lat. 43° 17′ N. ; lon. 5° 22′ E. ; seat of a bishop, and of many civil and military authorities. The port is safe and spacious, capable of accommodating 1200 vessels, but not admitting a ship of larger size than a frigate. A new port has recently been constructed, sufficient to receive ships of the line, and is used for quarantine ground. The lazaretto is the finest in Europe. The old city is principally composed of crooked, narrow and steep streets, lined with high houses. The new city has wide, straight streets, with foot-walks. The houses are in general handsomely built, and there are several agreeable promenades and squares. The cathedral is one of the oldest in France ; the Hôtel de Ville is the handsomest building in the city. There are an observatory, several hospitals, a *mont de piété*, a savings bank, 21 churches, an academy of arts and sciences, a royal college, a public library of 60,000 volumes, and numerous other literary, scientific and charitable institutions. The principal articles of export are Naples soap (made at Marseilles), olive-oil, brandy, anchovy, spirits, excellent cutlery, corks, chemical preparations, coral, perfumes, silks, &c. It carries on a considerable commerce with all parts of the world, particularly with Italy, Spain, Barbary and the Levant. In 1826, 82,000 bales of cotton (one quarter of the whole amount imported into France) were carried into Marseilles. Sugar (for its refineries), dye-wood, and other colonial articles, form its imports. In 1824, 5723 vessels, with a burden of 392,996 tons, were entered at this port. The inhabitants are laborious, intelligent and honest, but quick and ardent ; they are very fond of music, dancing and shows. Population, 115,943. Marseilles was founded, 600 B. C., by a colony of Phocæans, and formed, at an early period, a flourishing republic, celebrated for the wisdom of its institutions. Cicero calls it the *Athens of Gaul*. Under the domination of the Romans, it continued to rival Alexandria and Constantinople in commerce. During the middle ages, it again became a republic, but, in 1251, was reduced by the counts of Provence. In 1482, it was annexed to the crown of France. In the revolution, its inhabitants were at first distinguished by their zeal in favor of the new doctrines ; but, in 1793, it was found on the side of the Girondists.

Marsh, Herbert, bishop of Peterborough, is a native of London, and was bred at St. John's college, where he was much distinguished both as a classical scholar and mathematician. Having obtained a fellowship and academical honors, he went to Göttingen to improve himself in modern languages. He resided several years at Göttingen, and there undertook the translation of one of the most profound works of Germany into English, viz. Michaelis's Introduction to the New Testament, to which he added explanatory and supplemental notes (4 vols., 8vo.). But he did not confine himself to theological studies ; he sought for and gained much information on political affairs, which he transmitted to the minister, Mr. Pitt, who procured him a pension. When the French invaded Germany, he returned to England, and obtained the Margaret professorship of divinity in the university of Cambridge. He then engaged in a course of lectures on theology, and read them in English instead of Latin, by which he induced persons of all orders and descriptions to attend them. In 1792, he published an Essay on the Usefulness of Theological Learning. He was soon engaged in controversy ; first with arch-deacon Travis, in support of one of his notes on Michaelis. He next took up his pen against Mr. Belsham, for the purpose of defending his own hypothesis respecting the history of the gospel. He was afterwards engaged in a newspaper war on the dispute between Mr. Lancaster and Dr. Bell. He likewise published an Essay on the English National Credit. What most recommended him to notice was his History of the Politics of Great Britain and France, which was esteemed a full justification of the conduct of the English ministry. These exertions in the cause of church and administration rendered him conspicuous, and he was, in 1816, appointed bishop of Landaff, and soon after translated to the see of Peterborough. His other works are, an Examination of the Conduct of the British Ministry relative to the Proposal of Bonaparte; the Politics of Great Britain vindicated; a Dissertation on the Origin and Composition of the three first Gospels (1802); Letters to the Anonymous Author of the Remarks on Michaelis and his Commentator; the Illustration of his Hypothesis respecting the three first Gospels (1803); a Defence of the above Illustration (1804); a Course of Lectures on Divinity (1810); a Vindication of Mr. Bell's System of Education (1811); History of the Translations of the Scriptures (1812); *Horæ Pelasgicæ* (1813), containing an Inquiry into the History and Language of the Pelasgians; with others of less note.

Marshal (in ancient German, *Marschalk*); derived, according to some, from the ancient German word *Mar*, a horse of the nobler kind, and *Shalk*, originally a servant (though at present a cunning fellow); hence *Marschalk*, a man appointed to take care of the horses. *Maréchal*, in French, still designates a farrier, though it also denotes a high dignity. As the word came, in the sequel, to designate high officers of state and war, this derivation of the word proved unacceptable to some persons, and it was attempted to derive it from *mar*, *maer*, from the Latin *major*, as in *major-domo*; but the first derivation is the most probable, and it is by no means the only instance in which the names of high dignities originated with low employments. A similar instance is the French *connétable*, from *comes stabuli*. *Marshal* signified at first a person intrusted with the charge of twelve horses under the *comes stabuli*. In France, the title sunk still lower, so as to designate, as we have said, every farrier; but in other parts of Europe, it rose in dignity, as horses were highly valued at courts, so that it came to signify the person appointed to the care of all the horses of a prince; and, these persons being at length appointed to high commands in the army, and important posts in the state, the title came to signify one of the highest officers of the court. The marshal of the German empire derived his origin from the Frankish monarchs, and was equivalent to the *comes stabuli* or *connétable*. He was bound to keep order at the coronation of the emperor, and to provide lodgings for the persons connected with the ceremony. He was called *arch-marshal*, a dignity belonging to the electorate of Saxony. At the coronation, it was his duty to bring oats, in a silver vessel, from a heap in the open market-place, and to present the vessel to the emperor. His duties were discharged by a hereditary marshal (*Erbmarschall*). In France, *maréchal de France* is the highest military honor: *maréchal de camp* is equal to major-general, in Austria to field-marshal. In Prussia, general-field-marshal is the highest military honor. In England, *field-marshal* means the commander-in-chief of all the forces. It is also given as an honorary rank to general officers who have no immediate command.—*Marshal* was, and in many countries of Germany is, the title of the president of the diet of the estates. His office is sometimes hereditary. *Marshal* also signifies a person who regulates the ceremonies on certain solemn celebrations. *Marshal* is also used for some inferior officers in England. The marshal of the king's bench has the custody of the prison called the *King's bench*. He attends on the court of the same name, and takes into custody all prisoners committed by it. The officers in the U. States' courts, corresponding to the sheriffs in the courts of the several states, have also the name of *marshal*.

Marshal, Earl. (See *Earl Marshal.*)

Marshal, Provost. (See *Provost Marshal.*)

Marsham, sir John, a learned writer on ancient history and chronology, born in 1602, in London, was educated at Oxford, and entered as a student of the law at the Middle Temple. In 1638, he was made one of the six clerks in chancery, which place he lost; and suffered in his estate for his attachment to royalty during the civil wars. At the restoration of Charles II, he recovered his office, was knighted, and became a member of parliament. Three years after, he obtained a baronetcy. He died in 1685. His *Canon Chronicus Ægyptiacus, Ebraicus Græcus*

(London, 1672, folio), displayed much erudition and some ingenuity. He also published a work on the difficulties in the chronology of the Old Testament, and wrote the preface to the first volume of Dugdale's *Monasticon.*

Marsi; 1. a tribe in Samnium, on the northern bank of the *lacus Fucinus*, in the present *Abruzzo ulteriore.* They had the same language with the Sabines. They distinguished themselves in the social war, which, from them, is also called the *Marsian* war.—2. A German tribe belonging to the Istævones, a member of the Cheruscan league. (See *Cheruscans.*) They pressed forward after the defeat of Varus, and settled chiefly on the banks of the Lippe, but retreated during the succeeding wars with the Romans.

Marsigli, Lodovico Fernando, count of, was born in 1658, of an illustrious family at Bologna, and, after having received a good education, went to Constantinople in 1679, with the Venetian ambassador. On his return, he entered into the imperial service, and was employed as an engineer in the war with Turkey. He was taken prisoner at the passage of the Raab, and sent as a slave to Bosnia. On obtaining his liberty, he was again employed, and, having been made a colonel of infantry, was sent, with his regiment, to garrison the fortress of Brisac; and, that place being taken by the French in 1702, was accused of misconduct, and ignominiously dismissed from the Austrian service. Retiring to Switzerland, he published a justificatory memoir, and afterwards took up his residence at Cassis, near Marseilles, where he occupied himself with the study of marine botany, and other scientific pursuits. In 1709, pope Clement XI made him commander of his troops; but he soon relinquished this office, and retired to his native place, where, in 1712, he founded the institute of Bologna. He afterwards travelled in England and Holland, and, in 1725, published, at Amsterdam, his *Histoire Physique de la Mer* (fol.); and, in 1726, his most valuable work, the *Danubius Pannonico-Mysicus* (6 vols., fol.), containing the natural history of the Danube, in its course through Hungary and Turkey. He died at Bologna in 1730, at the age of 72.

Marston, John; an English dramatic author, who lived in the reign of James I, was educated at Corpus-Christi college, Oxford, and was entered at the Middle Temple, of which society he became lecturer; but little more of his personal history is known, except that he was at one time upon terms of friendship with Ben Jonson. He was the author of eight plays, all acted at the Black Friars, with applause. Six of these were printed in one volume, in 1633, and dedicated to the viscountess Falkland. He also wrote three books of satires, entitled the Scourge of Villany (1599), reprinted in 1764.

Marston Moor, in Yorkshire, England; celebrated for the battle between the royal forces under prince Rupert and the troops of the parliament under Fairfax and Cromwell (1644), in which the latter were victorious. (See *Charles I,* and *Cromwell.*)

Marsupials, in zoölogy; a singular family of the order *carnivora,* in the class *mammalia,* so called from a pouch (*marsupium*), in which the young remain immediately after birth, and into which they retreat in case of danger, when older. (See *Kangaroo, Opossum.*)

Marsyas; a son of Olympus, Oägrus or Hyagnis. Fable relates that, after Minerva had thrown away the flute which she had invented, displeased because it disfigured the countenance in playing, and had pronounced the severest maledictions against any one who should take it up, Marsyas accidentally found this instrument, on which he soon acquired such skill, that he dared to challenge Apollo to a contest. The Muses were invited to be the umpires. At first, the stronger music of the flute drowned the softer tones of the lyre, on which the god played; and Marsyas was on the point of winning the victory, when Apollo accompanied his instrument with his voice. Marsyas was unable to do the same with his flute. The Muses decided in favor of Apollo, who put to death his rash competitor by flaying him alive. In this way was the curse of Minerva accomplished. This fable is emblematic of the preference given by the inventors of the fable to the art of singing to the lyre above that of performing on the flute. Many ancient and modern artists have represented the contest, as well as the punishment of Marsyas.

Mart, or Marque, Letter of. (See *Letter of Mart or Marque.*)

Martello Towers, so called, by corruption, from *Mortella*, in Corsica, where a strong tower maintained a determined resistance to a superior English force in 1794. In consequence of the great strength exhibited by this fort, the British government erected 27 similar towers on the Kentish coast, at intervals of about a quarter of a mile, as a defence against the threatened invasion from France. They are circular, with walls of great thickness, and roofs bomb-proof. One traversing gun is mounted upon each, in working which the men are secured by a lofty parapet. They are surrounded by a deep dry fosse: the entrance is by a door several feet from the ground, approach to which is then cut off by drawing up the ladder. The ordinary guard consists of from six to twelve men.

Marten (*mustela*). The term *marten*, although applied to the whole weasel tribe, is more generally used in this country to designate the pine marten (*M. martis*), which is an inhabitant of the woody districts in the northern parts of America, from the Atlantic to the Pacific. This species is also found in Northern Asia and Europe. It very closely resembles the marten of Europe, but may be distinguished by its smaller size, longer legs, finer, thicker and more glossy fur, and from the throat being marked by a broad yellow spot, whilst the same part in the European marten is white. The pine marten preys on mice, rabbits and partridges, &c. A partridge's head, with the feathers, is the best bait for the log traps in which this animal is taken. When this animal is pursued, and its retreat cut off, it shows its teeth, erects its hair, arches its back, and hisses like a cat. It will seize a dog by the nose, and bite so hard, that unless the latter is accustomed to hunt them, it suffers the little animal to escape. It is easily, but never thoroughly tamed. It burrows in the ground, carries its young about six weeks, and brings forth from four to seven in a litter, about the latter end of April. The fur is fine, and much used for trimmings. Upwards of 100,000 are collected annually in the fur countries. Pennant's marten, commonly called the *fisher* (*M. canadensis*), is also a native of the northern parts of America. It is a larger and stronger animal than the last mentioned species; climbs trees with facility, and preys principally on mice. It lives in the woods, preferring damp places in the vicinity of water. It inhabits a wide extent of country, from Pennsylvania to the Great Slave lake. It brings forth once a year, from two to four young. It is sought for for its skin, of which considerable numbers are every year exported by the fur traders. The European marten (*M. foina*) inhabits most parts of Europe. It is a most elegant and lively animal, exceedingly agile and graceful in its motions. The female breeds in hollow trees, and produces from three to seven young at a time, which, in winter, have sometimes been found sheltered in magpies' nests. These animals are very destructive to poultry, eggs, &c., and also feed on rats, mice, and moles; they are also very fond of honey, and will sometimes eat seeds and grain. They have a musky smell. They are capable of being tamed, but generally require to be kept chained.

Martens, George Frederic Von; professor at Göttingen, and Hanoverian aulic counsellor, one of the most eminent writers and lecturers on the law of nations. His earliest work, which has become a standard book on the subject, was published at Göttingen, in 1789, and has been translated by Cobbett. It bears the title of a Compendium of the Law of Nations, founded on the Treaties and Customs of the modern Nations of Europe. He afterwards published a Course of Diplomacy (in 3 vols., 8vo.); a Collection of the principal Treaties of Peace and Alliance since 1761 (14 vols., 8vo.); and several other works. The merit of these works caused the services of the author to be sought for by the German sovereigns. In 1807, Jerome Bonaparte appointed him a counsellor of state, in the financial department; and he was retained in it after the fall of Jerome. In 1814, he was employed, at the congress of Vienna, to draw up the reports of the conferences between the ministers, and was afterwards sent on a mission to prince Christian, in Norway. In 1816, he was nominated minister from Hanover to the diet at Frankfort, where he died in 1821.

Martha, Sister, was long deservedly admired for her active and impartial humanity. Anne Biget, known by the name of *Sister Martha*, was, before the French revolution, what is called a *tourière* in a convent; that is, a nun who has the care of the turning box, fixed on pivots in the wall, by means of which messages and articles are conveyed to and from the convent, without any of the nuns being seen. When the dissolution of the convents compelled her to return into society, she dedicated her time and her means to the consoling of the poor, and particularly of prisoners. Though her pecuniary resources were small, her kindness was unbounded. In 1809, when she was between sixty and seventy years of age, six hundred Spanish prisoners arrived at Besançon, the place where she resided. She hastened to their assistance, did her utmost to supply their wants, and watched over those who were sick. She was often employed by them to solicit the governor of Besançon, when they had any thing to request; and one day, when she was visiting him on this kind of errand, he said, "Sister Martha, you will be much grieved to hear that your good friends the Spaniards are going to leave Besançon." "Yes," replied she, "but the English are coming, and all the unfortunate are my friends." Her impartial benevolence was, indeed, extended to all; and, in 1814, its utmost powers were called forth to comfort and assist the wounded French and allied soldiers. "It was on the field of battle," said the duke of Reggio to her, "that I became acquainted with your character. Our soldiers, when they were wounded, and far from their country, used to exclaim, 'Oh, where is Sister Martha? If she were here, we should suffer less.'" After the confederated sovereigns obtained possession of Paris, they were desirous of seeing this admirable woman, and did not forget to reward her virtues. The emperor of Russia gave her a gold medal, and a sum of money; the emperor of Austria, the cross of civil merit, and 2000 francs; and the king of Prussia, a gold medal. The Spanish monarch sent her a cross. She was also presented to Louis XVIII, who received her graciously, and conferred honors upon her. She died at Besançon, in 1824.

Martha, Santa; a city of Colombia, on the northern coast, with a large, safe and commodious harbor, strongly fortified; lat. 11° 19′ N.; lon. 78° 48′ W.; population, 5000. The heat is great, and the houses are liable to be filled with a fine sand, blown up by the south-west winds. It has considerable commerce.

Martha's Vineyard; an island of Massachusetts, on the south side of Cape Cod, 12 miles west-north-west of Nantucket, 19 miles long, and from 2 to 10 broad; lon. 70° 40′ W; lat. 41° 40′ N. The greatest part of the island is low and level, and but a small part of the land is good. The principal manufactures are those of wool and salt. The island contains three towns, Edgartown, Tisbury, and Chilmark. On the north side of the island is the harbor of Holmes' Hole. (q. v.)

Martial, Marcus Valerius, the most celebrated of the epigrammatical writers among the Romans, was born at Bilbilis, in Celtiberia, A. D. 43, and educated at Calaguris (*Calahorra*), the birth-place of his friend Quinctilian. He went to Rome when young, during the reign of Nero, and lived under the reign of Galba and the following emperors; from some of whom he received marks of esteem and favor. Domitian appointed him tribune, and made his circumstances more easy by presents. Trajan, who was no friend to satirists, withheld the favor which Martial had received from his predecessors. This induced the poet to retire to his native city. Pliny the Younger gave him a sum of money to pay the expenses of the journey. While in Italy, he married a Spanish lady, who brought him a considerable estate. He died in the year 101. His celebrity is founded on 14 books of epigrams, of which he himself modestly says, "*Sunt bona, sunt quædam mediocria, sunt mala plura.*" The number and value of his epigrams give a high idea of the wit of the poet. Most of them are ingenious and cutting; many are full of grace and attic salt; and many, in which he chastises the vices of his age, are extremely indecent and immodest. He is the true father of modern epigram, which is distinguished from the simple Greek epigram, by the convergence of all its parts to one witty point. The best editions of his works are that of Paris, 1617, folio; of Scriverius (Leyden, 1618 and 1619, 3 vols. 12 mo.); of Schrevelius (Leyden, 1656); and Rader (Mentz, 1627, folio); an expurgated German translation has also been published by Willmann (Cologne, 1825.)

Martial Law. The law martial applies to soldiers in actual service, and, in England as well as in the U. States, is founded upon particular statutes. Chief-justice Hale, in his History of the Common Law, chapter ii, says, it is a body of rules, and a jurisdiction rather indulged by the law than constituting a part of it. But it does not appear why it is not a part of the law of the land, as much as the law merchant or any other branch of law. It is true it applies only to persons in actual military service, and only to their conduct in such service; but so the maritime law applies only to persons engaged in maritime trade, and has reference only to acts done, or obligations arising, in that trade. The jurisdiction under the law martial is in a distinct tribunal, and the mode of proceeding is different from that which prevails in the common law and in equity jurisdiction; the tribunal for the trial of offences against the military law being a court-martial (consisting of a number of officers, from 5 to 13 in the U. States), appointed by some superior officer. The proceedings are conducted, not by attorneys, but by an officer called a *judge advocate*, who by the act of the congress of the U. States passed April 10, 1806, is so far to "consider himself as counsel for the prisoner, after the prisoner shall have made his plea, as to object to any leading question to any of the witnesses, or any question to the prisoner, the answer to which might make him criminate himself." The several states of the Union have also a law martial, consisting of the statutes relating to their militia, directing the manner of constituting courts-martial, and specifying the offences of which these courts shall have jurisdiction, and assigning the kinds and limiting the degrees of punishment. A military code, and also a special tribunal for the trial of offences against its provisions, are absolutely necessary for the government and regulation of an army, since the offences to which such a code relates, are quite different from those cognizable by the common law, and are such that the ordinary tribunals are not fitted to have jurisdiction of them: the proceedings, too, must be more summary than is practicable before the standing judiciary. The act of congress above mentioned contains a list of military offences, and provides minute regulations for the government of the army, in 101 articles, to which every officer of the army is required to subscribe at the time of entering the service.

Martignac. (See *France*,and *Polignac.*)

Martin, St., the most famous of this name, was born of heathen parents at Sabaria, in Pannonia (now *Stein*, in Lower Hungary), about the year 316. He attended the catechetical school at Pavia. His father was a military tribune, and compelled him, in his 16th year, to take up arms. He is said to have early escaped from his father, and received instruction in a Christian church. While a soldier, his life was marked with the rigor of a monk. He served under Constantius and Julian, and went to Gaul, where he appeared as the model of all virtue. Among other acts, he divided his cloak with a poor man, whom he met at the gates of Amiens. The legend says that Christ appeared to him in the following night, covered with the half of this cloak. Soon after this vision, Martin was baptized, in 337, and lived many years in retirement, till St. Hilarius, bishop of Poitiers, appointed him exorcist. While on a journey to visit his parents, he was attacked in the Alps by two highway robbers; the axe of one assailant was already hovering over his head, when the other, touched by his look of innocence, saved him, and was immediately converted. In Pannonia, to which he returned, as was alleged, at the command of the Divinity in a dream, he converted his mother, and opposed, with zeal, the Arians, who prevailed in Illyria. For this, he was scourged from the country, on which occasion he manifested the firmness of a martyr. He now established a monastery in Milan, and afterwards, having been driven thence by the bishop Auxontius, founded another on the island of Gallinaria, in the Ligurian sea. He next settled at Poitiers, where he assembled a number of religious persons, and is said to have wrought many miracles; for instance, to have raised one of his pupils from the dead. In the year 375, the bishopric of Tours was conferred on him against his will. In order to withdraw himself from the world, he built the famous convent of Marmoutiers, between the Loire and a steep rock, where he finished his life in the year 400. This is regarded as the oldest abbey of France. St. Martin was the first to whom the Roman church offered public adoration. His exertions in spreading the true belief, and exterminating paganism in France, are deserving of all commendation. The anecdote, that the emperor Maximinus, at a banquet, to which he invited Martin, offered him the goblet in order to receive it from his hand, has made him the patron of drinkers. His festival, which takes place on the 11th of November, was formerly celebrated with banquetings and carousals, where the hilarity was frequently excessive (as is shown by the French expression *Martiner*, and *le mal de St. Martin*). The *Professio Fidei de Trinitate*, attributed to St. Martin, is regarded as spurious.

Martin. Of five popes of this name, the most important are, *Martin I*, of Todi, in Tuscany, who was educated with care, and elected pope in 649. At a synod of Italian bishops in the Lateran church at Rome, he caused the Monothelites and the emperor Heraclius to be solemnly condemned. He was therefore carried captive to Constantinople, and condemned to death as a traitor. At the request of the patriarch Paulus, the punishment of death was transmuted into that of banishment. Martin was deprived of all marks of his dignity, exposed to the contumelies of the people and soldiers, and banished to the Chersonese, where he died in 655. On account of these sufferings, he was numbered among the saints. We have 18 epistles of his, of little value. —*Martin V*, of the ancient family of Colonna, was chosen pope in 1417, after the abdication of Gregory XII, and the deposition of Benedict XIII, during the council of Constance. No one of his predecessors or followers has ever been consecrated with such solemnity. He rode on a white horse, which the emperor of Germany and the elector of the Palatinate, both on foot, led by the bridle. A number of princes, and a whole council, formed his retinue. His first act was to promulgate a bull against the Hussites, which is remarkable from the circumstance that in it the pope seems to recognise the supreme authority of the councils. In 1418, he dissolved the council of Constance, though a number of difficulties were not adjusted, and dissensions continued in the church. Benedict XIII still lived; and, at his death, in 1424, a new antipope was elected in Clement VIII, who first renounced his pretensions in 1429, when he received the bishopric of Minorca as an indemnification. A council which Martin V convened at Pavia, and thence removed to Sienna, was dissolved, without having established any thing. He died soon after, in 1431. He has the merit of having restored unity to the church, and pacified Italy. We yet possess some works of his.

Martin, don Juan, El Empecinado. (See *Diez.*)

Martin, Louis Claude, St., a mystical writer, of noble descent (marquis), was born at Amboise, in Tourraine, Jan. 18, 1743, entered early the military service, travelled over Europe, served during the revolution in the national guard, and retired to solitude. He died at Antray, near Chatillon, Oct. 14, 1803. He was modest and pious: his works are full of symbolic mysticism. He found a number of adherents, who called themselves *Martinists*. He translated Jacob Bőhme's Aurora (*Morgenrőthe*). His mystical work *Des Erreurs et de la Vérité* (Lyons, 1775) is famous. He farther wrote *Tableau naturel des Rapports qui existent entre Dieu, l'Homme et l'Univers* (Edinburgh, 1782, 2 vols.); *De l'Esprit des Choses* (1800, 2 vols.); *Ecce Homo; Le nouvel Homme* (1796); *Ministère de l'Homme d'Esprit* (1802); *L'Homme de Désir* (new ed., Metz, 1802, 2 vols.); *Le Crocodil, ou la Guerre du Bien et du Mal, Poëme épico-magique, en CII Chants* (1800); *De Dieu et de la Nature*, &c.

Martin, Christopher Reinhard Dietrich; counsellor of the high court of appeal, privy counsellor of justice to the grand-duke of Saxe-Weimar, &c.; one of the most distinguished jurisconsults of Germany, particularly in the branch of judicial procedure, on which he has written a manual, which, since 1800, has gone through eight editions. He was born in Hesse, went to Gőttingen when 15 years old, and became a lawyer three years later. He was appointed professor at Gőttingen and at Heidelberg, which political troubles obliged him, in 1815, to leave; and he received an appointment in Weimar, at the same time lecturing in Jena. He has drawn up an order of procedure, and a criminal code, for Weimar, which have not yet been sanctioned. He has appeared, besides, as a political writer, and was editor of the New Rhenish Mercury, from 1816 to 1818.

Martin, John, a distinguished living artist, is a native of an obscure town, called Haydon-bridge, on the Tyne, about six miles from Hexham, in Northumberland. He was born in July, 1789, and was first inspired with a love of painting by seeing some drawings made by his brother, which he immediately copied and surpassed. After struggling with various difficulties, he went to London, and there obtained patrons. His first successful picture was Sadak in search of the Waters of Oblivion. This was followed by Adam and Eve in Paradise, Joshua, the Destruction of Babylon, Belshazzar's Feast, and the Destruction of Herculaneum. The two last of these pictures were exhibited at Bullock's museum, and excited the admiration of more than fifty thousand spectators, who paid to see them, though one of them had before been open to public view at the British gallery. Mr. Martin has since executed a magnificent picture, the subject of which is Sardanapalus, or the Fall of Nineveh, and another representing the deluge. All his pictures have been engraved by himself. In 1830, engravings of his Belshazzar, Joshua, and the Deluge, having been presented to the king of France by the French academy, that prince ordered a medal to be struck, and sent to Mr. Martin, in token of his esteem. The genius of this artist inclines him to represent the vast, the terrible, the obscure, the supernatural. The horrors of the tempest, the convulsions of nature, the awful immensity of space, are combined with the gorgeousness and sublimity of the architecture and drapery, and the tempest of terror and despair in the human breast. Yet, in point of finish, in coloring and in drawing, he is deficient. He has the soul of the poet, but wants some of the excellences of the artist. (See the *Edinburgh Review*, June, 1829.)

Martinet; a word frequently used to signify a strict disciplinarian, who sometimes gives officers and soldiers unnecessary trouble. It is supposed to have originated from an adjutant of that name, who was in high repute as a drill officer, during the reign of Louis XIV. The word also signifies, in French, a sort of scourge, used by school-masters; and perhaps this instrument may have been the true source of the above military term.

Martini, John Baptist, a skilful composer and musician, born at Bologna, in 1706, entered early into the order of Minim Friars, and travelled for some time in Asia; and it was not until his return, that he entirely devoted himself to music. His progress was so rapid, that, at the age of 17, he was appointed chapel-master to a convent of his order in Bologna, which situation he filled until his death, in 1784, exercising, at the same time, the functions of professor; and from the school of Martini issued some of the most eminent composers in Italy. He wrote a History of Music (in 3 vols., folio); as also an Essay on Counterpoint; and *Compendio della Theoria de' Numeri.*

Martinico, or **Martinique**; one of the largest of the Caribbee islands in the West Indies, belonging to France; 48 miles long, and about 16 broad; square miles, 360; population, in 1827, 101,865; 9937 whites, 10,786 free people of color, and 81,142 slaves; chief towns, St. Pierre and Fort Royal; lon. 61° to 61° 26′ W.; lat. 14° 24′ to 14° 56′ N. It is very uneven, and intersected, in all parts, by a number of hillocks, which are mostly of a conical form. Three mountains rise above these smaller eminences. The highest bears the indelible marks of a volcano. The woods with which it is covered, continually attract the clouds, which occasion noxious damps, and contribute to make it horrid and inaccessible, while the two others are in most parts cultivated. From these mountains, but chiefly from the first, issue many springs that water the island. These waters, which flow in gentle streams, are changed into torrents on the slightest storm. Their quality partakes of the nature of the soil they pass through: in some places, they are excellent, in others, so bad that the inhabitants are obliged to drink the water they have collected in the rainy seasons. The yellow fever made great ravages in 1825: hurricanes, in 1813, 1817, 1823, were destructive: the earthquakes of 1823 and 1828 did but little damage. Of 75,381 hectares,* the superficial area of the island, 17,622 are employed in raising sugar-cane, 3861 coffee, 719 cocoa, 491 cotton; 17,191 is pasturage, 19,997 woods. The annual production is valued at 21,000,000 francs. The island consumed French products to the value of 16,000,000 in 1824, and exported to the mother country 18,000,000 in value. The tonnage engaged in this commerce was 33,500 tons. The revenue, in 1823, was 4,000,000. It has a garrison, and the administration is conducted by a council, at the head of which is the governor. Martinique was discovered by the Spaniards, in 1493, and occupied by the French in the middle of the seventeenth century. The English captured it repeatedly; for the last time, in 1809, and restored it to France in 1814.

Martyn, Henry, an able missionary, was born in Cornwall, in 1781; in 1797, entered St. John's college, Cambridge, of which society he was chosen fellow, in 1802. The following year, he took orders, and, in 1805, went to India, as a chaplain to the East India company. In the East, he distinguished himself by his rapid acquirement of the native languages. He became master of Sanscrit, translated the Common Prayer into Hindoostanee, and performed divine service publicly in that language. From India, he proceeded to Shiraz in Persia, and translated the Psalms and New Testament into the Persian tongue. He also held conferences with the learned Mohammedans, and converted some of them to Christianity. He died of a decline, in Persia, Oct. 16, 1812.

Martyr, Peter (more correctly *Pietro Martire d'Anghiera*), an Italian writer, who, after having attached himself to the cardinal Visconti, and to the archbishop of Milan, went to Spain (1487), distinguished himself in the military service of Ferdinand and Isabella, and then embraced the clerical profession. Ferdinand employed him in some important affairs, and created him counsellor of the Indies. Charles V also treated him with favor. He died in 1526, at the age of 75 years. His principal works are *De Rebus Oceanicis et Orbe novo Decades*,—a history of the discoveries of Columbus and his successors, from their own relations; *De Insulis nuper inventis* (1521); *De Legatione Babylonica*,—an account of his embassy to Egypt, whither Ferdinand had sent him, in 1501; and his *Opus Epistolarium.*

Martyr, Peter (whose family name was *Vermigli*), one of the earliest Protestant divines, distinguished for learning and abilities, was born at Florence, in the year 1500, and entered, at the age of 16, into the order of the regular canons of St. Augustine, at the monastery of Fiesole. In 1519, he removed to Padua, where he studied Greek and philosophy. In 1526, he commenced preacher, and attracted great applause in several cities of Italy. After receiving numerous important offices in his order, his religious opinions were considered as savoring too much of the doctrine of the reformers, and it became necessary for him to quit Italy, and, at Zurich, in Switzerland, he was received in a friendly manner by the Protestant clergy (1542). Soon after, he became professor of divinity at Strasburg, and, in 1547, accompanied Bucer, Fagius, and other learned reformers, on the invitation of archbishop Cranmer, to England. Martyr had followed the example of Luther, in marrying a nun, who had renounced her vows. He was appointed to the theological chair at Oxford, in 1549, and became a very efficient assistant to the English reformed clergy, in carrying on their plans of innovation in the church. On the accession of queen Mary, being commanded to quit the country, he returned to Strasburg, and resumed his former situation. In 1556, he removed to Zurich, to occupy the office of theological professor. In 1561, he assisted at the famous conference between the Catholics and Protestants held at Poissy, in France; and died at Zurich, in the following year. Peter Martyr was the author of many works on divinity, including commentaries on some parts of the Old and New Testaments. He is said to have excelled Calvin in erudition, and the knowledge of languages, and his personal character was extremely amiable.

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* A hectare is nearly two and a half English acres.

Martyrs (from the Greek μαρτυρ, a witness); a name applied, by the Christian church, to those persons, in particular, who, in the early ages of Christianity, and during the great persecutions, suffered ignominy and death, rather than renounce their faith, and thus testified their unshaken confidence in the truth and divine origin of the new doctrines. The animation which faith inspires in noble minds, wherever it is opposed and oppressed, has given to the Christian church many heroic examples of this sort; and, in all ages and countries, religious tyranny has aroused the spirit of martyrdom, which leads to the sacrifice of life and of worldly good for faith. An account of the life, persecutions and death of the Christian martyrs, is called *martyrology*. Clement I, bishop of Rome, was the first who attempted a work of this kind. The Roman martyrology is the most celebrated. (On the worship of martyrs, see the article *Saints*.) *Martyr*, in a wider sense, is used for any innocent person who suffers in a good cause, or in a cause which he considers so; thus we say, to be a martyr to the truth, to a cause, &c. (For further information, see *Persecutions*.)

Martyrs, Æra of. (See *Epoch*.)

Martyrs, Festivals of the, seem to have been observed as early as the second century. The Christians offered prayers at the tombs of the martyrs, and thanked God for the example which they had given to the world. The rite was concluded with the sacrament of the Lord's supper and the distribution of arms. Eulogies were also delivered, and accounts of the lives and actions of the deceased read. These festivals were called the *birth-days of the martyrs*, because on the day of their death they were born to the joys of eternal life. The churches or chapels consecrated to the martyrs were styled *martyria*. They sometimes, though not always, contained their bones, and sometimes were particular rooms in the great churches.

Marvell, Andrew, was born at Kingston-upon-Hull, in 1620, and sent to Trinity college, Cambridge, whence he was inveigled away by some jesuitical emissaries, and was found by his father in a bookseller's shop in London, and induced to return to college. On the death of his father, in 1640, he made the tour of Europe, and distinguished himself by some humorous satires against Richard Flecknoe, an English poetaster, resident at Rome, which circumstance induced Dryden to give the name of *Mac Flecknoe* to his satire against Shadwell. He afterwards acted as secretary to the English legation at Constantinople, and, on his return, was appointed assistant to Milton, in his office of Latin secretary. In 1660, he was chosen member of parliament for his native place, which he represented to the end of his life, and obtained a high character for diligence, ability and integrity. In the reign of Charles II, Marvell was in the opposition, and his whole efforts, both in and out of parliament, were directed to the preservation of civil and religious liberty. Although he rarely spoke, his influence was great. The earl of Devonshire was intimate with him, and prince Rupert often followed his advice. He had the character of being the wittiest man of his time, and wrote a number of poetical effusions of the humorous and satirical kind, which were very effective as party pieces. Marvell was the author of several tracts, one of which, entitled an Account of the Growth of Popery and Arbitrary Power in England, gave so much offence, that a reward was offered for the printer and publisher. Notwithstanding the earnestness with which he opposed the court, his wit made him a favorite with Charles II, who deputed the lord treasurer Danby to wait upon him, with the offer of £1000, and a promise of future favor. He rejected the bribe without hesitation; and was obliged, on the departure of the courtier, to send to a friend for the loan of a guinea. The life of Marvell was more than once threatened by his irritated enemies; and his death, which happened in August, 1678, without much previous illness, has been attributed, with no support from direct evidence, to poison. He was buried at St. Giles's in the Fields, at the expense of his constituents, who voted a sum to erect a monument to his memory; but it was not admitted by the rector. The most complete edition of his works is that by Thompson, with an account of his life (3 vols., 4to., 1776).

Mary is probably derived from the Hebrew *Miriam* (strife, disobedience). Mary, the mother of Jesus, in the language of the church, *Our Dear Lady*, or the *Holy Virgin* (in French, *Notre-Dame;* Italian, *Madonna;* English, *Our Lady*), is described in the gospel history as a virgin in humble circumstances, but of the stem of David, who lived in obscurity in Nazareth, a city of Galilee, and was betrothed to Joseph, a carpenter. A heavenly messenger broke in upon her solitude with a salutation of the deepest veneration. The Virgin was astonished at the appearance: her modest feelings could not account for such a mark of distinction. The angel saluted her as the highly-favored of God, and announced to her that she should bear a son, who should be called the Son of God, the long-expected Savior of the Jews. "How shall this be," she replied, "seeing I know not a man?" The angel informed her that the power of God should overshadow her, and make that which was impossible a reality, as had been the case with her aged friend Elizabeth, who was barren. She bowed in submission to the will of the Supreme,—"Behold the handmaid of the Lord: be it unto me according to thy word." The feelings excited by her high and wonderful destiny raised her above doubt, and the song of praise into which she bursts forth at her meeting with Elizabeth expresses the joy which she felt at her destination. The little we learn of her feelings at the birth of Christ, the salutations of the shepherds, and his presentation in the temple, show that the emotions which were excited by the annunciation still remained. She sees the connexion between the vision of angels, which the shepherds related, and what she already knew: she was not astonished when she heard the prophetic blessing of Simeon. At the wedding in Cana, she sought the miraculous power of her Son to relieve the embarrassment occasioned by a want of wine. She doubtless attended him through all his perilous course, with ever-watchful anxiety; for we find her absorbed in silent sorrow at his cross, with the beloved disciple John. To his care Jesus intrusted her as to a son, after which she disappears from history. Towards the end of the fourth century, parties were formed among the Christians, which paid her too little or too much veneration. Some Thracian and Scythian women, having a very slight knowledge of Christianity, carried into Arabia their pagan feelings towards a mother of the gods, and established a formal worship of the Virgin Mary. They worshipped her as a goddess with prayers, processions and sacrifices, and, among other ceremonies, offered her, on a carriage consecrated to her service, small cakes (Greek, *kollyris*), whence they were called *Collyridians*. Even orthodox theologians began to maintain the opinion that Mary always remained a virgin as a doctrine of faith; and a party in Arabia, which regarded her as the actual wife of Joseph and the mother of several children by him, was called *Antidikomarianites*, that is, the adversaries of Mary. At the end of the fourth century, Helvidius in Palestine and bishop Bonosus in Illyria were declared heretics for the avowal of similar opinions. Poetry and the Catholic church readily adopted the image of Mary for an ideal of female excellence. With the worship of saints, the veneration of the Virgin Mary is naturally connected. In the sixth century, the Christian church began to celebrate festivals in her honor, of which the Purification, the Annunciation and the Visitation (the visit of Mary to Elizabeth) are still retained in many Protestant countries. The Greek and Catholic Christians, and the schismatic churches in the East, observe several feasts besides the above in honor of the Virgin; for instance, the birth of Mary, and her ascension to heaven; that is, her death and reception to heaven (by the Catholics called the *Assumption*). The festival of the immaculate conception is celebrated only by the Catholic church. It was first introduced in 1145: it was not received, however, universally, on account of the violent opposition of the Dominicans. These disciples of St. Thomas Aquinas (q. v.) refused to admit that Mary was conceived and born without original sin. The council of Trent left this dispute undecided, notwithstanding the violence with which it had often been renewed. The worship of Mary gave rise to a belief in the miraculous power of several old images of the Virgin. Those at Loretto, in Italy, and Czenstochow (q. v.), in Poland, are particularly celebrated for their healing powers, both in diseases of mind and body. To such images, the Catholics have been accustomed to perform pilgrimages to obtain the indulgence promised to pilgrims by the papal bulls. Several religious orders have been instituted in honor of the Virgin Mary, among which are the mendicant order of Servites (q. v.), and all the orders of females called by her name; for example, the nuns of the Conception, of the Annunciation (see *Franciscans*), of the Visitation.—Sacred history mentions several Maries: 1. *Mary of Bethany*, the sister of Lazarus, the ready scholar and tender worshipper of Jesus, to whom he vouchsafed his peculiar friendship and an imperishable name (*Matthew* xxvi, 13).—2. *Mary of Magdala*, or *Mary Magdalene*, who was cured by Christ of an inveterate disease, and proved her gratitude by the most devoted adherence to him. She served him with her property, attended him on his journeys, and wept at his crucifixion. She was the last to leave his grave, and the first to visit it on the morning of the resurrection, and to behold her risen Lord. (See *Magdalene.*)—3. *Mary*, the wife of Cleophas, the mother of the apostle James, and, 4. *Mary*, the sister of Mary the mother of Jesus, both of whom we find at his cross and his sepulchre, and who had probably been in his train. (For the Catholic worship of the Virgin, so important in history, and for its influence on the fine arts, see *Virgin*, and *Saints.*)

Mary of Medici, daughter of Francis II of Medici, grand-duke of Tuscany, was born at Florence, in 1573, and married to Henry IV, king of France, in 1600. After his death, in 1610, she became regent. The duke of Epernon had obliged the parliament of Paris to confer on her the regency. Mary, at the same time regent and guardian of her minor son, Louis XIII, dismissed the great Sully, and allowed herself to be guided by Italian and Spanish favorites. The state lost its respect abroad, and was torn by the dissensions of the great within. A treaty, concluded in 1614, granted to the malcontents every thing which they had asked for; but party spirit rose anew, as Mary's conduct caused universal dissatisfaction, she having given herself totally up to the guidance of the marshal d'Ancre and his wife,—the two most shameless favorites that ever stood near a throne. The death of this marshal, murdered by order of Louis XIII, put an end to the civil war. Mary was banished to Blois, whence she proceeded to Angoulême. Richelieu, then bishop of Luçon, reconciled the mother and son, in 1619, but Mary, dissatisfied with the non-fulfilment of the terms of the agreement, kindled a new war, which, however, was soon subdued. After the death of the *connétable* de Luynes, her enemy, Mary stood at the head of the council of state. In order to strengthen her authority, she introduced Richelieu, her favorite, into the council; but hardly had the cardinal reached the summit of his greatness, when he made his former protectress sensible that he was no longer dependent upon her, and she immediately labored to effect his downfall. Louis XIII having fallen seriously sick at Lyons, she obliged him to promise to abandon the cardinal. In order to avoid the fulfilment of this promise, the king endeavored to reconcile the two parties after his recovery. Mary was not to be moved, and the king was so much displeased that he consented to sacrifice her. A secret council of state was held, the chief mover of which was the cardinal, who showed, in a long speech, that either the queen or he himself must be sacrificed. He then set forth the dangers which threatened the state from without and within so forcibly, that the king held himself lost without the support of his prime minister. All the other members of the council of state agreed with the king, partly from flattery, partly from fear of opposing him, partly from the wretched state of the kingdom. The king was apprehensive, in consequence of the suggestions of the cardinal, that the queen intended to put her second son Gaston on the throne. The queen therefore received orders, in 1631, to retire to the castle of Compiegne, and all her adherents were either banished, or confined in the Bastile. The queen soon felt that she was in reality a prisoner at Compiegne, and fled, in the same year, to Brussels. She afterwards repeatedly demanded justice from the parliament, and died in 1642, in great want, at Cologne. Paris owes to her the magnificent palace of the Luxembourg, fine aqueducts, and the public walk, called *Cours-la-Reine*. She was jealous, obstinate and ambitious. With Henry IV she had not been happier than with Louis XIII. The amours of her husband caused her the greatest grief, and jealousy often excited her to violence. With unbounded passion, she united all the weaknesses of her sex. She was ambitious from vanity, confiding from want of intelligence, and more avaricious of distinction than power. Her biography appeared in 1774 (Paris, 3 vols.).

Mary I, queen of England, daughter of Henry VIII, by Catharine of Arragon, was born in 1516. In her infancy, she was betrothed, first to the dauphin of France, afterwards to the emperor Charles V, and, lastly, to the duke of Orleans. After her mother's death, she was declared illegitimate, but was restored to her rights, when the succession was finally settled in 1544. She was bred up by her mother, in a zealous adherence to the Roman Catholic faith; on which account, she was treated with rigor under Edward VI. She ascended the throne in 1553, after an abortive attempt to set her aside in favor of lady Jane Grey. One of her first measures was the reinstatement of the prelates who had been superseded in the late reign, while Cranmer was prosecuted for high treason, and several other Protestant bishops imprisoned. The marriage of the queen with the arch-duke Philip, son of the emperor Charles V, afterwards Philip II, united as it was with a complete restoration of the Catholic worship, produced much discontent. Insurrections broke out under Cave, in Devonshire, and Wyat, in Kent, which, although suppressed, formed sufficient excuses for immuring the princess Elizabeth in the Tower, and dooming the youthful and unfortunate Jane Grey (q. v.) and her husband, Guildford Dudley, who had been hitherto spared, to execution. Philip arrived in England in 1554, when the nuptials were celebrated; but the attempts of Mary to secure him a paramount authority in England were unsuccessful. She succeeded better in a reconciliation of the kingdom to the pope, which was effected, in great form, by the legate cardinal Pole. The sanguinary laws against heretics were revived, and those shocking scenes of cruelty followed, which have fixed upon this princess the hateful epithet of *bloody queen* Mary. The legate Pole disapproved of this severity; but the arguments of Gardiner and others were more congenial to the gloomy bigotry of the sovereign, and 277 persons were committed to the flames, including prelates, private clergymen, laymen of all ranks, women, and even children. Her union with Philip II was equally unpropitious to herself and the nation. Eleven years younger than the queen, he treated her with great neglect; and, to prevent the fulfilment of his threat of desertion, England was forced into a war with France, and the assistance of English troops facilitated the Spanish victory over the French at St. Quentin. This result, which was of no service to England, was quickly counterbalanced at her expense, by the loss of Calais, which was taken in 1558, after it had been in the hands of the English for 200 years. This disgrace sank deep in the heart of Mary, who was already declining from a dropsical complaint, and preyed upon by a consciousness of the hatred of her subjects, and the indifference or aversion of her husband. She terminated her short and dark reign, of little more than five years, in November, 1558, in the 42d year of her age. Mary was not destitute of the characteristic vigor and ability of her family; but her natural capacity was clouded by bigotry, and the prejudices fostered by the connexion of her mother's divorce and ill-treatment with the separation from the see of Rome. Hateful as was the severity really displayed, it has not unfrequently been highly exaggerated, and censured with too little regard to the intolerance prevalent in that age. With Mary I, ended the dominion of popery in Great Britain.

Mary II, queen of England, born in 1662, was the daughter of James, duke of York, afterwards James II, by his wife Anne Hyde, daughter of lord Clarendon. She was married, in 1677, to William, prince of Orange, and, when the revolution was effected, which dethroned her father, Mary was declared joint-possessor of the throne with her husband, king William, on whom all the administration of the government devolved. This arrangement cost Mary no sacrifice, her strong regard to, and profound respect for, her consort being always conspicuous. She was strongly attached to the Protestant religion and the church of England. During the absence of William in Ireland, in 1690, Mary managed parties at home with extreme prudence, and acted with equal ability during his various visits to the continent. The unfriendly terms on which she lived with her sister Anne have been regarded as a blemish in her character; but political jealousies, and the weak attachment of the latter to overbearing favorites, may sufficiently account for it. Mary died of the small-pox, at Kensington, in the year 1695, in her 33d year. (See *William III.*)

Mary Stuart, queen of Scots, celebrated for her beauty, her accomplishments, her errors, and her misfortunes, was born Dec. 8, 1542, and was the daughter of James V of Scotland, by his queen, Mary of Lorraine, a French princess, of the family of Guise. Her father dying when she was about eight days old, violent disputes arose among the nobility about the guardianship of the infant sovereign, and the conduct of public affairs. The regency was at length vested in the earl of Arran, and Henry VIII of England having demanded the hand of Mary in marriage for his son Edward, the regent's rejection of the proposal occasioned a war, in which the Scots were defeated at the battle of Musselburgh. At the age of six, the young queen was sent by her mother to France, where she was educated in a convent, and appears to have been instructed in every branch of learning and polite accomplishment which was fashionable at that period. April 20, 1558, she was married to the dauphin, afterwards Francis II. He died about six months after his accession to the crown, in December, 1560, and the widowed queen returned to Scotland. The future incidents of her life are matter of well-known history, and, remarkable as they are, a very slight notice of the most important can alone be introduced into this article. The queen, having received overtures of marriage from various quarters, gratified her inclination by uniting herself with her cousin, the young and handsome Henry Stuart, lord Darnley, by whom she became the mother of James VI. Darnley proved a profligate and ungrateful husband, and a weak and worthless man. Excited by jealousy, he caused his wife's secretary, David Rizzio, to be murdered in her presence, and offered her many other indignities, which produced an open quarrel between them. An apparent reconciliation took place, when Darnley, who had continued to reside separately from the queen, was assassinated, and the house he had inhabited was blown up with gunpowder, in February, 1567. This barbarous transaction was but very imperfectly investigated; and, in the month of May following, the imprudent Mary wedded the earl of Bothwell, who was openly accused as the murderer of the late king. Scotland soon became a scene of confusion and civil discord. The people rebelled against the authority of the queen. Bothwell, a fugitive and an outlaw, took refuge in Denmark; and Mary was made a captive, treated with insult and contempt, and committed to custody in the castle of Loch Leven. After some months' confinement, she effected her escape, and, assisted by the few friends who still remained attached to her, made an effort for the recovery of her power. She was opposed by the earl of Murray, the natural son of James V, who had obtained the regency in the minority of her son. The battle of Langside ensured the triumph of her enemies; and, to avoid falling again into their power, she fled to England, and sought the protection of queen Elizabeth. That princess treated her with all the jealousy of a personal and political rival; and, after keeping her a prisoner during eighteen years, she caused her unfortunate captive to be tried and executed for a conspiracy against her government. Mary received the news of her destined fate with great serenity; wrote her will, and, having prepared herself for death, by practising the ceremonies enjoined by the Catholic faith, to which she was devotedly attached, suffered decapitation, Feb. 8, 1587, in the castle of Fotheringhay, where she had been long confined; and, Aug. 1, was interred, with great pomp, in the cathedral of Peterborough. Her body was subsequently removed, by her son, James I, to Henry VII's chapel, Westminster, where a magnificent monument was erected to her memory. She wrote with elegance in the Latin and French languages, and many of her compositions have been preserved, consisting of poems, letters, and a discourse of royal advice to her son. The character and conduct of Mary, queen of Scots, have been made the subject of much controversy. In the list of her partisans may be mentioned Goodal, W. Tytler and Whitaker; while the Scottish historians, doctor Robertson and Laing, have exhibited the evidence against her. "No inquiry," says sir W. Scott, in his History of Scotland, "has been able to bring us to that clear opinion upon the guilt of Mary which is expressed by many authors, or to guide us to that triumphant conclusion in favor of her innocence of all accession, direct or tacit, to the death of her husband, which others have maintained with the same obstinacy. The great error of marrying Bothwell, stained as he was by universal suspicion of Darnley's murder, is a spot upon her character for which we in vain seek an apology. What excuse she is to derive from the brutal ingratitude of Darnley; what from the perfidy and cruelty of the fiercest set of nobles who existed in any age; what from the manners of a time in which assassination was often esteemed a virtue, and revenge the discharge of a debt of honor, must be left to the charity of the reader." Chalmer's Life of Mary (1818) and Miss Benger's Memoirs of Mary (1823) may be consulted. The misfortunes of Mary have furnished a subject for the tragic muse of Schiller and Alfieri.

Mary's College, Mount St., is situated in a romantic spot at the foot of a branch of the Blue Ridge mountains, two miles from the town of Emmettsburg, in Frederic county, Maryland; distant from Baltimore, 50 miles, and 60 from Washington city. It was established, in 1809, by doctor Dulois, now Catholic bishop of New York. In 1830, it was raised to the dignity of a college, by the general assembly of Maryland, and named Mount St. Mary's college. Only 12 students have been graduated; but the number of students for the year beginning with July, 1831, is 130. The government of the college is vested in a council of directors. There are 9 professors, and 16 associate professors and tutors. The philosophical apparatus is very good, and the library consists of 7,000 volumes. There is only one vacation, viz. from July 1 to August 15. Commencement is in the last week of June.

Mary's College, St. (See *Baltimore.*)

Mary's Falls, St.; rapids on the river St. Mary's, between lake Superior and lake Huron. The water descends 22 feet 10 inches in three quarters of a mile. Canoes and barges descend the falls with a full load, and ascend with half a load.

Mary's River, St.; a small river which separates Georgia from Florida, and runs into the Atlantic ocean; lat. 30° 43′ N.; lon. 81° 40′ W.

Maryland; one of the United States of America, bounded north by Pennsylvania and Delaware, east by Delaware and the Atlantic ocean, south-west and west by Virginia; lon. 75° 10′ to 79° 20′ W.; lat. 38° to 39° 44′ N.; square miles, 13,950; population in 1790, 319,721; in 1800, 349,692; 1810, 380,546; in 1820, 407,350; in 1830, 446,913. The number of slaves included in this last number was 102,878; and of free people of color, 52,912. The increase of population for the last 40 years has been nearly equal to one per cent. per annum. The proportion between the colored population and the white is as 1 to 1.87. The seat of government for Maryland is Annapolis. Baltimore is much the largest city. Fredericktown, Hagerstown, Easton and Cumberland are considerable towns. Chesapeake bay divides the state from north to south. The part of the state east of the bay is called the *eastern shore*, the part west, the *western shore*. The country on the eastern side of the Chesapeake, with the exception of a small part of the northern extremity, is an extensive plain, low and sandy, much intersected by rivers and creeks, having few springs, and abounding with stagnant water. In this part, the air, in summer, is moist, sultry and disagreeable, and the inhabitants are subject to agues and intermittent fevers, and many of them have a sickly appearance. The Maryland part of the peninsula included between the Delaware and Chesapeake bays, is much lower and more uniformly level than the Delaware part. The soil is well adapted to corn wheat, tobacco, and sweet potatoes. The genuine white wheat, which is said to be peculiar to this state, is raised in some of the counties on the eastern shore. The country on the western shore of the Chesapeake, below the falls of the rivers, resembles that on the eastern shore. Above these falls, the country becomes hilly, and, in the western part of the state, it is mountainous. The western parts of the state are crossed by several ridges of mountains. All the uneven country abounds with springs of excellent water, and the climate is highly salubrious and agreeable. There are excellent orchards of apples, pears, peaches, plums, and cherries. The forests abound in nut-bearing trees, which feed great numbers of swine. These swine run wild, and, when fattened, are killed, barrelled, and exported. Beef and mutton are also plentiful. Some cotton for domestic use is raised in Maryland, but its quality is not good. The principal rivers are the Potomac, which divides this state from Virginia; Susquehanna, Patapsco, Elk, Sassafras, Chester, Choptank, Nanticoke, and Pocomoke. The most considerable export from this state is that of flour; next to this is that of tobacco. The other exports are principally of iron, Indian corn, pork, flax-seed and beans. The trade of

Maryland is principally carried on from Baltimore with the other states, the West Indies, and various parts of Europe. The value of exports of domestic produce during the year ending Sept., 1829, was $3,662,273. The tonnage of vessels owned December 31, 1828, was 170,948. The tonnage of steam-boats, in 1827, was 2207½. The most numerous denomination of Christians in Maryland is the Roman Catholic. There are also many Presbyterians, Methodists, Episcopalians, Baptists and Friends, and several denominations having less numbers. The legislative power is vested in a senate of 15 members, and a house of delegates, consisting of 80 members; and these two branches are styled the *general assembly of Maryland.* The members of the house of delegates, four from each county, are elected annually by the people, on the first Monday in October; and the members of the senate are elected every fifth year, on the third Monday in September, at Annapolis, by electors who are chosen by the people on the first Monday of the same month. These electors choose by ballot nine senators from the western shore, and six from the eastern, who hold their office for five years. The executive power is vested in a governor, who is elected annually on the first Monday in January, by a joint ballot of both houses of the general assembly. No one can hold the office of governor more than three years successively, nor be eligible as governor until the expiration of four years after he has been thrice elected. The governor is assisted by a council of five members, who are chosen annually by a joint ballot of the senate and house of delegates. The general assembly meets annually at Annapolis, on the last Monday in December. The council of the governor is elected on the first Tuesday in January; the governor nominates to office, and the council appoints. The constitution grants the right of suffrage to every free white male citizen, above 21 years of age, having resided 12 months within the state, and six months in the county, or in the city of Annapolis, or of Baltimore, next preceding the election at which he offers to vote. The state is divided into six judicial districts, for each of which there are three judges. Each court is constituted of one of the judges of the court of appeals, and two associates. The chancellor and judges are nominated by the governor, and appointed by the council; and they hold their offices during good behavior. The principal literary seminaries of Maryland are the university of Maryland, St. Mary's college, Mt. St. Mary's college and Baltimore college in Baltimore, and St. John's college at Annapolis. There are several academies, which receive $800 dollars a year from the state treasury. A law in favor of primary schools was passed in 1825, and has been partially carried into effect in two or three counties. The state has a school fund of $75,000, together with a tax for the same purpose on bank capital, of 20 cents on every $100. Maryland was granted, in 1632, by Charles I of England, to sir George Calvert, lord Baltimore, a Roman Catholic, and an eminent statesman, who had been secretary to James I; but, before the patent was completed, lord Baltimore died, and the patent, dated June 20, 1632, was given to his eldest son, Cecilius, who succeeded to his titles, and who, for upwards of 40 years, directed, as proprietor, the affairs of the colony. Leonard Calvert, brother of Cecilius, lord Baltimore, was appointed the first governor; and he, together with about 200 persons, commenced the settlement of the town of St. Mary's, in 1634. A free toleration of religions was established, and a system of equity and humanity was practised with regard to the Indian tribes. The state was named for Henrietta Maria, queen of Charles I. After the colony of Maryland had established its general assembly, even to the time of the revolution, the right of appointing the governor, and of approving or disapproving the acts of the assembly, was retained by the family of lord Baltimore. The constitution of Maryland was formed in 1776, but many amendments have since been made.—For further information, see *An Historical View of the Government of Maryland, from its Colonization to the present Day* (Baltimore, 1831).

Masaccio (properly *Tommaso Guido*); one of the oldest painters of the Florentine school, to whom the art of painting owes very much, is said to have been born about 1402, at St. Giovanni, in the Val d'Arno. In the church del Carmine, at Florence, are some excellent paintings of his, also at St. Clemente, in Rome, but in a bad state. Baldinucci has described his life accurately, and corrected Vasari. Both place Masaccio among the first painters, by whom the harshness and difficulty of the art was diminished, and life and expression given to it. Annibal Caro composed an epitaph for him, in which he says Buonarotti taught all other painters, and learned from Masaccio alone.

Masaniello. (See *Massaniello.*)

Mascaret; the swell occasioned near the mouth of a river by the influx of the tide from the sea, counteracting its current, and thus forcing back its waters. In large rivers, where the latter part of their course is but little if at all above the level of the ocean, the collision is sometimes tremendous, and is attended with loud roarings, as is the case at the mouth of the Amazons. It has been poetically said that the genius of the river and the god of the ocean contend for the empire of the waters. The Indians in South America call it *pororoca*. The reader will recollect the lines in Rokeby:

> Where Orinoco, in his pride,
> Rolls to the main no tribute tide,
> But 'gainst broad ocean urges far
> A rival sea of roaring war.

Maseres, Francis, cursitor baron of the exchequer, was born in 1731, of a French refugee family, studied law, was made attorney-general of Quebec, and, some years after, on his return to England, cursitor baron of the exchequer. He was an excellent mathematician, and published, in 1759, a treatise on the negative sign, in which he argues against the doctrine of negative quantities. He also printed a collection of *Scriptores Logarithmici*, a work in 6 vols. 4to.; a Treatise on Life Annuities, with several Historical Tracts; and, by his liberality, induced the reverend Mr. Hellins to undertake his edition of Colson's translation of Agnesi's *Istituzioni Analytiche*. He died in May, 1824, aged 93.

Masham, Abigail, the favorite of queen Anne, noted in English history for her political intrigues, was the daughter of Mr. Hill, a rich merchant of London, who married the sister of Mr. Jennings, the father of the duchess of Marlborough. The bankruptcy of her father obliged her to become the attendant of a baronet's lady, whence she removed into the service of her relative, then lady Churchill, who procured her the place of waiting-maid to the princess Anne. She retained her situation after her mistress ascended the throne, and, by her assiduity and complaisance, acquired a great degree of influence over her. The high church principles in which she had been educated, contributed to increase her credit with the queen, who was secretly attached to the tory party, though obliged, in the beginning of her reign, to favor the whigs. The marriage of Miss Hill with Mr. Masham, in 1707, occasioned an open quarrel with lady Marlborough, who was, in consequence of it, deprived of her majesty's confidence. Harley, afterwards earl of Oxford, connected himself with the new favorite; a change of ministry took place, and, in 1711, Mr. Masham was raised to the peerage. He and his wife appear to have been actively engaged in the intrigues of the tories in favor of the exiled house of Stuart. Lady Masham lived a long time in retirement after the death of the queen, and died herself at an advanced age. The title of baron, bestowed on her husband, became extinct on the death of her only son, June 14, 1776.

Masinissa, king of the Massylians, in Numidia, the son of king Gula, was educated at Carthage. While yet young, he defeated Syphax, king of the Massæsylians, an ally of the Romans. He then served in the Carthaginian armies in Spain against the Romans. Fortune at first favored his enterprises; but, having been totally defeated by Scipio Africanus at Bætula, with Asdrubal and Mago, he capitulated, and became an ally of the Romans. In the mean time, his father died, and Mezetulus, an enemy to his family, usurped the dominion, under the name of a guardian. When Masinissa was informed of this, he hastened back to Africa, and re-conquered his paternal kingdom. During this period, the enmity between Syphax and Carthage had ceased, and Asdrubal had given to Syphax his daughter, Sophonisba, who had already been betrothed to Masinissa. Syphax, at the instigation of Asdrubal, attacked Masinissa, with such success as to compel him to flee, with only a few horsemen. He then conquered the country of the Massylians, and Bochar, one of his generals, pursued Masinissa so closely that he escaped with a few attendants, and severely wounded. They concealed themselves in a cave, and supported themselves by plunder, till Masinissa recovered from his wounds. He then hastened to the frontiers of Massylia, and, aided by the inhabitants, not only recovered his patrimony, but invaded Massæsylia itself. Syphax, however, again defeated him, and he escaped to the Syrtis Minor, with only 70 horsemen. He awaited there the arrival of his allies, the Romans. Syphax was now persuaded, by the Carthaginians, to restore Masinissa his kingdom; for they hoped to gain him thus to their interests; but they were disappointed. The junction of his Numidian cavalry with Asdrubal was only to save appearances; he kept up a secret connexion with Scipio, and acquainted him with all the plans of the enemy, and at last openly went over to him. He now had it in his power to take vengeance on Syphax. With the assistance of the Romans, he defeated him several times, pursued him into his own territories, and finally made him prisoner, with his son. By the capture of the metropolis, the conquest was completed, and Sophonisba now fell into his power. Although he had resolved to punish her infidelity, his early love was revived, when, throwing herself at his feet, she begged for death, as the only deliverance from the shame of Roman bondage. He took her for his wife, expecting thus to evade the claims of the Romans; but Scipio demanded her as the prisoner of the Romans. The unhappy prince, who was entirely in their power, found that nothing but death could deliver her from their hands. He therefore sent her a poisoned chalice, which she willingly drank off, declaring that she died with pleasure, since it was by his command, and that he was the first and only object of her love. Scipio strove to soothe the grief of Masinissa by the highest marks of honor. He conferred on him the title of king in the presence of the army, granted him a crown of gold, a curule chair, &c., and procured from the senate the confirmation of his regal dignity. Masinissa continued in the Roman army, and gained fresh laurels in the battle of Zama, against Hannibal. At the conclusion of peace with Carthage, he recovered not only all his former possessions, but also a part of the territories of Syphax. His hatred against Carthage remained unabated, and he took from this republic a number of provinces, which the Romans confirmed to him. This led to an open rupture between Masinissa and Carthage. The king, then 80 years old, was victorious. Towards the close of his life, the third Punic war broke out. When Masinissa felt death approaching, he sent for the young Scipio Æmilianus, and gave him full power to take any measures in regard to his kingdom, which he thought would be most conducive to the good of his children. He died at the age of 90 years, and left behind him the name of a valiant and enlightened prince. He introduced a higher degree of civilization among his subjects, and taught them the advantages of agriculture.

Mask, the Iron, or the Man with the Iron Mask. This is the name by which is designated an unknown prisoner, who has excited a curiosity so much the more lively as it has appeared improbable that it should ever be completely satisfied. This personage was above the middle size, and of the finest and most noble figure. (See Voltaire's *Age of Louis XIV*, ch. 25.) He was carried, about the year 1662,* with the greatest secrecy to the castle of Pignerol, of which Saint Mars was governor. He wore, during the journey, a black velvet mask, and orders were given to kill him if he discovered himself. In 1686, he was carried by Saint Mars to the isle of Saint Marguerite; and, on the passage, the same precautions were observed as upon his first journey. The marquis of Louvois went to see him, and spoke to him standing, and with deference. The governor himself placed the plates upon the table, and afterwards retired, shutting the door, of which he kept the key. One day, it is said, the prisoner wrote with a knife upon a silver plate, and threw the plate from the window towards a boat, which was moored almost at the foot of the tower. A fisherman picked up the plate, and carried it back to the governor. The latter, astonished, inquired of the fisherman if he had read what was upon the plate, or if any one had seen it in his hands. "I do not know how to read," answered the fisherman; "I have just found it; no one has seen it." He was, nevertheless, detained for several days; and the governor, when he dismissed him, said to him, "Go; you are very fortunate in not knowing how to read."† Saint Mars having been appointed governor of the Bastile, in 1698, carried the prisoner with him there, but still masked. An apartment had been prepared for him, more convenient, and furnished with more care than those of the other unfortunate beings who inhabited this sad abode. He was not permitted to cross the courts, and he could not take off his mask even before his physician. In other respects, the greatest attention was shown him, and nothing which he requested was refused him. He was fond of fine linen and lace, and was very attentive to his whole personal appearance. His education appeared to have been carefully attended to; and he amused his leisure by reading, and playing upon the guitar. The physician of the Bastile related that this unknown person was admirably formed, and that he had a very fine skin, although rather brown. He interested by the mere sound of his voice, never complaining of his situation, and never giving any hint of his character. This unknown person died Nov. 19, 1703, at ten o'clock in the evening, without having undergone any severe sickness. He was buried the next day, at four o'clock in the afternoon, in the cemetery of the church of St. Paul. He was, it is said, about 60 years of age, although the record of his decease, in which he is mentioned under the name of Marthioli, makes him only about 45. Orders were given to burn every thing which had been employed in his service. The walls of the chamber which he had occupied were rubbed down and whitewashed. The precautions were carried so far, that the tiles of his room were removed, in the fear that he might have displaced some of them, to conceal a letter behind them. Voltaire, from whom the greater part of these particulars is borrowed, remarks, that at the period when the prisoner was confined, no person of importance disappeared from Europe; and yet it cannot be doubted that he must have been one. The marks of respect which Louvois showed him, prove this sufficiently. Conjecture has exhausted itself to discover who this mysterious personage might be. Laborde, first *valet de chambre* of Louis XV, and who had received from this prince many proofs of confidence, showed a desire to discover him. The king replied, "I pity him, but his detention injures only himself, and has prevented great misfortunes; you cannot know him." The king himself had not learned the history of the iron mask till his majority, and he never intrusted it to any one. The author of Secret Memoirs, to serve for the History of Persia (Pecquet), is the first writer who has attempted to raise the veil which covers the unknown prisoner. In this book, published in 1745, he pretends that it is the count of Vermandois, who was arrested, it was said, for having given a blow to the dauphin; but it is known that the count of Vermandois died in 1683, at the siege of Courtrai. Lagrange Chancel, in a letter to Fréron, attempts to prove that the prisoner is the duke of Beaufort, and that he was falsely reported to have been killed at the siege of Candia. Saint Foix, in 1768, wished to prove, in his turn, that it was the duke of Monmouth, who was said to have been beheaded at London, but who had been withdrawn from punishment. Le P. Griffet, who held the office of confessor to the prisoners of the Bastile, from Dec. 3, 1745, to 1764, has examined these different opinions in the Treatise upon the Proofs which serve to establish the Truth of History, chap. xiv; and he adds that all the probabilities are in favor of the count of Vermandois. Voltaire has proved (*Philosoph. Dict.*, art. *Ana, Anecdotes*) that the unknown prisoner could be no one of the personages just mentioned, but does not declare who he was. "The writer of this article," adds he, "knows, perhaps, more of him than P. Griffet, and will not say more of him." Voltaire, doubtless, knew that the report was spread that the prisoner was a count Girolamo Magni, or Mattioli, first minister of the duke of Mantua, who had been removed from Turin in 1685, or rather 1679, by order of the cabinet of Versailles, because it was feared that his dexterity might defeat the negotiations entered into with the court of Piedmont. Delort, *Hist. du Masque* de Fer, published at Paris 1825, likewise maintains this opinion. Dutens, nevertheless, reproduced it in 1789, in his Intercepted Correspondence, Lett. 6, and again in 1806, in the Memoirs of a Traveller in Repose, vol. ii, p. 204—210; and two other writers, in 1801 and 1802, endeavored to establish this opinion, with a great array of evidence. The abbé Soulavie, editor of the Memoirs of the Marshal de Richelieu, inserted in them, vol. iii, p. 75, a History of the Iron Mask, written by his Keeper. This account was said to have been given by the regent to his daughter, who communicated it to the marshal. According to this account, the Iron Mask was a twin brother of Louis XIV. Before the birth of this prince, two herdsmen announced to Louis XIII, that the queen would give birth to two dauphins, who would occasion a civil war, which would convulse the whole kingdom; and this prince immediately formed the resolution of removing him who should be born second, in order to prevent these troubles. The opinion entertained by a certain party, that the unknown prisoner was the offspring of a criminal intercourse between the queen and the duke of Buckingham, has been sufficiently disproved. At the time of the destruction of the Bastile, in July, 1789, there were not wanting curious persons, who sought, in the archives of this fortress, to discover some notices which might throw light upon this historical problem. In the last number of the journal entitled Leisure Hours of a French Patriot, p. 386, dated August 13, 1789, is mentioned a note written upon a card, which a man, inspecting the Bastile, took up at random, with several papers. The card contains the number 64,389,000, an unintelligible cipher, and the following note—"Foucquet, arriving from the isle of Marguerite, with an iron mask." Afterwards X... X... X..., and below "Kersadwin." The journalist declares that he has seen this card. The romance of M. Regnault Warin, entitled The Man with the Iron Mask (in 4 vols., 12mo., published in 1804, and the fourth edition of which appeared in 1816), is preceded by a dissertation of twenty-eight pages, in which the author endeavors to prove that this mysterious personage was the son of Buckingham and Anne of Austria. He goes so far as to give the portrait of the prisoner. The *Mélanges d'Histoire et de Litérature* (Paris, 1817, 8vo.) contains a Dissertation upon the Man in the Iron Mask, p. 77—156, in which the various hypotheses are judiciously discussed, even that of the chevalier de Taulès, French consul in Syria, in the year 1771, who, in a memoir (published in Paris 1825), seeks to prove that the man in the iron mask was a patriarch of the Armenians, named Awediks, removed from Constantinople at the instigation of the Jesuits, several years after the death of cardinal Mazarin. He has no difficulty in refuting this fable, and finishes by saying—"After an impartial investigation, and having weighed all the circumstances, I cannot doubt that he was the son of Anne of Austria, but without being able to determine at what period he was born." It has also been maintained that this prisoner was don John of Gonzaga, natural brother of Charles Ferdinand, duke of Mantua. A letter of Barbesieux, of Nov. 17, 1697, in which he says to Saint Mars—"without explaining yourself to any one whatsoever with regard to what your ancient prisoner has done,"—seems to overturn all the hypotheses, according to which this unhappy man owed his misfortune only to the accident of his birth.

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* This date is subject to some difficulties. Saint Mars was not appointed governor of Pignerol until Fouquet was brought there, whose arrest took place December 20, 1664. (Saint Foix's *Answer to P. Griffet*, page 126.)

† May not the history of the plate be an incorrect version of that of the fine shirt, carelessly folded, upon which the prisoner had written from one end to the other, and which a friar, who saw it floating under the window of this unknown person, carried directly to M. de Saint Mars, who pressed him eagerly to tell him if he had read any thing upon it. In spite of his denial, the friar was found, two days afterwards, dead in his bed. These details, and others concerning the abode of the mysterious prisoner at the isle of Saint Marguerite, were given to the abbé Papon, who visited this prison, Feb. 2, 1778, by an officer of the French company, then about 79 years of age, whose father had been, in some particulars, the confidant of Saint Mars, and had carried away, upon his shoulders, the dead body of the servant of the prisoner. (Papon's *General History of Provence*, vol. ii, and *Journal of Learned Men*, Dec., 1779, p. 778.)

Masks, or **Larvæ** (q. v.), were used in the most ancient times, particularly in the processions and ceremonies attending the orgies of Bacchus. As there were in the ceremonies three degrees, those of Satyrs, Sileni and the bearded Bacchus, so each degree had its peculiar and characteristic mask. These are often found represented on ancient vases. On account of this religious signification, it is not strange that they were used in connexion with the Phallus, the symbol of fruitfulness, as an effectual defence against witchcraft. An old writer explains the power of the mask to protect against enchantment, in this way: that its ridiculous distortion, drawing upon itself the pernicious glance of the sorcerer, averts it from the person for whom it was intended. It was natural that the Greeks, whose highest aim was beauty, should elevate the character of the mask; thus, at length, there sprung from this fashion of misshapen masks the more pleasing Sileni and Satyr masks, and other sportive fancies of artists, which, in time, produced the grotesque and arabesque. As the origin of Grecian tragedy was closely connected with the worship of Bacchus, masks were used in it, even in the beginning. Who first introduced them into comedy is unknown. We shall err if we consider the Grecian and Roman masks exactly like those of the modern Italian: these latter only cover the face; the former were a covering for the whole head, and represented, with the features, the head, hair and eyes. They were, at first, made of the bark of trees, then of leather, afterwards of wood, which the artist fashioned according to the design of the poet. Tragic masks were distinguished by great, open mouths, and a frightful appearance; comic, by a laughing countenance: there were, also, Satyr masks and orchestric, or those with regular features, for dancers. They had mostly very large, open mouths, within which were metallic bars, or other sounding bodies, to strengthen the voice of the speaker—a contrivance which was required by the construction and immense size of the old theatres. Many critics (so called), ignorant of the peculiarities of the Grecian stage, are unsparing in their censures of the ancients for the introduction of masks into their plays, because, say they, all imitation of nature, and even the flexibility of voice necessary for the expression of passion, were thus rendered impracticable. They do not remember, that the tragic imitation of the ancients aimed at the highest dignity and grace, that is, was ideal, and the close representation of individual character, in which the moderns are accustomed to place the chief merit of the actor, would have seemed to them the last thing to be admitted in their tragic theatre. "The Greeks preferred beauty to liveliness of representation. The introduction of the mask was, on account of this feeling, not merely allowable, but essential, as they would have considered it little less than profanation for an actor, with common, ignoble features, bearing the stamp of his individual character, to have played Apollo or Hercules." To this may be added, that, from the colossal size of the Grecian theatres, the minute imitation of nature, in tone and countenance, which the moderns applaud, would have been lost. As the Roman theatre was, in almost all its parts, formed upon the Grecian, it differed little in the use of the mask. The work of Francesco de' Ficoroni, upon the stage masks and comic personages of ancient Rome, is instructive and highly interesting, from the copper-plate illustrations. The Italian popular theatre, called *Commedia dell' Arte*, which has a close resemblance to the old Roman mime and pantomime, still retains the use of the mask; for these drolleries of the old Roman stage, requiring no particular learning, or high cultivation, continued even under the government of the barbarians. As early as the twelfth century, when Irnerius established a new school of law in Bologna, we find the Bolognese doctor, also called *Gratiano*. He has a mask with a black nose and forehead, and red cheeks; his character is that of a pedantic and tedious proser. The Pantalone came upon the stage about the end of the fourteenth century. His part is that of the father; he represents a rich Venetian trader; his dress was, formerly, the zimarra, a sort of mantle with short sleeves and a small collar. This garment was worn by Venetian traders in their shops, and is still worn by lawyers. It was likewise a part of the costume of Pantalone, that the breeches and stockings should be in one piece; hence the origin of the name *pantaloons*. They were, in the old costume, always red, and the zimarra always black. When the republic of Venice lost the kingdom of Negropont to the Turks, the fashion of the under dress was changed from red to black, as a sign of mourning, and has remained the same since. In the mask there was nothing unusual; the beard was still worn, and the representation was that of a common old merchant. The beard of the new Pantalone mask is different: it passes round under the chin, and terminates at a point in the middle. The vest was lengthened, and the full pantaloons were tightened at the knee. The zimarra and slippers remained the same. The character of Pantalone is usually that of a good-natured simple old man. He is generally in love, and is continually imposed upon by a rival, son, or servant. In modern times, he is often a good father of a family, full of honor, and conscientiously observant of his word, and very strict to his children; but in the particular of being continually imposed on, he remains the same. He speaks in the Venetian dialect—the doctor in the Bolognese. Buffoons are likewise among the oldest masks of the Italian stage; one is Harlequin (q. v.), the other is Scapin, cunning and knavish servants of Pantalone and the Doctor. Brighella is not so old, as his garment, garnished with green ribbands, and made in the fashion of the middle ages, proves. Sismondi gives the following account of his origin, from the Chronicle of Malvezzi: "1200 of the nobility of Brescia wished to compel the citizens to take up arms against the people of Bergamo, and they resisted. A bloody battle ensued, in the streets of Brescia, in which the nobility were beaten; they fled to Cremona, where they formed a military band; the popular party formed a similar band, under the name of *Brugella* or *Brighella*." The name has been preserved on the stage, in a mask, which represents a proud, bold and crafty plebeian of Brescia. This derivation is opposed to the common account, according to which, Brighella sprung from Ferrara. The Doctor of Bologna, Pantalone of Venice, Harlequin of Bergamo, Brighella of Ferrara, and all the personages, who are best comprehended under the name of *Zanneschi*, the captains Spavento, Tracasso, Tempesta (who call to mind the Pyrgopolynices of Plautus), Trufaldin the Bergamese, have, therefore, all been on the stage from the fifteenth century. Besides these, the Romans had the don Pasquale and the Gelsonmi; the Florentines, the Pasquelle; the Calabrians, the Giangurgolo; the Sicilians, the Travaglini; the Messenians, the Giovanelli; the Neapolitans, the Coviello, Pasquariello; the Milanese, the Girolamo; the Piedmontese, the Gianduja. Of the female masks, the Colombine of the Italian theatre is to be mentioned. Of the other characters may be mentioned Pedrolino, Bertolino, Trivelino, Mezzolino and D. Plione Balanzoni. (Respecting the mask of Pulcinella, see this article.) Ruzzante, in 1530, is said to have introduced the masked characters into the higher comedy. Accurate representations of these masks are to be found in Riccoboni's History of the Italian Theatre (Paris, 1728, 2 vols., 8vo.) (See professor Franc. Valentini's *Trattato sulla Commedia del Arte, ossia improvvisa, Maschere Italiane ed alcune Scene del Carnivale di Roma*, Berlin, 1826, 4to., with 20 colored engravings. See, also, the article *Carnival.*) The mask used at masked balls, or masquerades, is a covering for the head and face, made from a light stuff, with which a man may disguise himself and remain unknown, or perhaps represent some other character. There are whole and half masks; for example, masks for the nose and the eyes. The best are of wax and fine linen; the poorer, of paper. The former are made very well in Berlin and Italy, particularly at Venice; the latter, in France, at Paris and Rouen. There are natural masks, caricature masks (*mascheracci*), &c. Catharine of Medici is said to have first introduced masked balls. A similar mummery was in fashion at the court of Henry VIII (1510—46), who liked the disguise.

Mask; a species of drama. (See *Masque.*)

Maskelyne, Nevil, an eminent mathematician and astronomer, born in London, in 1732, educated at Westminster and Cambridge, was chosen a fellow of the royal society, and, in 1761, deputed to proceed to the island of St. Helena, to observe the transit of Venus. During the voyage, he employed himself in making lunar observations, with a view to ascertaining the longitude. In 1763, he went to Barbadoes, to try the accuracy of Harrison's time-keeper. On the death of Mr. Bliss, he became royal astronomer; and, in 1767, commenced the publication of the Nautical Almanac, for which he published a volume of accompanying tables. (See *Mason, Charles.*) In 1774, doctor Maskelyne was employed in making observations on the eclipses of Jupiter's satellites at Greenwich; and the same year he went to Scotland, to ascertain the gravitative attraction of the mountain Schehallien, in Perthshire, of which he published an account in the Philosophical Transactions. He died in 1811. He was the author of the British Mariner's Guide, containing complete and easy instructions for the discovery of the longitude at sea and land (1763, 4to.); and Astronomical Observations made at the Royal Observatory at Greenwich (1784—88, 3 vols., fol.); besides many papers in the Philosophical Transactions.

Mason, Charles; an English astronomer, an assistant of doctor Bradley at the royal observatory at Greenwich. He was employed to examine the lunar tables of Mayer, and the result of his labors appeared in Mayer's Lunar Tables, improved by C. Mason, published by order of the Commissioners of the Board of Longitude (London, 1787). Mr. Mason was sent to America with a grand sector, to determine the limits of the provinces of Maryland and Pennsylvania. He was accompanied by Mr. Dixon, in conjunction with whom he measured a degree of the meridian; and an account of their operations was published by doctor Maskelyne in the Philosophical Transactions for 1768. Mason died at Pennsylvania, in February, 1787. He communicated to the royal society an account of observations on the transit of Venus, June 3, 1769, made at Cavan in Ireland, and other papers, which may be found in the Philosophical Transactions.

Mason, William, a distinguished English poet, son of a clergyman in Yorkshire, was born in 1725. He studied at Cambridge, where he received a fellowship. His first appearance in the literary world was by the publication of Isis, a poem (1748), in which he satirized the Jacobitism and high-church principles which prevailed in the university of Oxford. This piece provoked a reply from Thomas Warton, entitled the Triumph of Isis. In 1752, he published his Elfrida, a tragedy with choral odes, on the ancient Greek model. Having taken orders in the church, he obtained the living of Aston in Yorkshire, and was appointed one of the royal chaplains. In 1759, appeared his Caractacus, a drama, on a kindred plan with the former. In 1762, Mr. Mason was made precentor of York. One of his principal works, the English Garden, a poem, in four books, appeared in 1772, 77, 79 and 81 (4to.); and a second edition, with a commentary and notes, by W. Burgh, was printed in 1785 (8vo.). This work was translated into French and German. In 1775, he published the poems of his friend Gray, with memoirs of his life. His principal subsequent publications are, Odes; a translation of Du Fresnoy's Art of Painting, with sir Joshua Reynold's notes (1783, 4to.); the Life of William White-head, with his poems (1788, 3 vols., 8vo.); and an Essay on Church Music. Besides his acknowledged works, Mason is supposed to have been the author of the Heroic Epistle to Sir William Chambers, and other satirical pieces, which were published under the signature of M'Gregor. At the beginning of the American war, Mr. Mason became so active an advocate for freedom as to give offence at court, and he was consequently dismissed from his chaplainship; but, alarmed by the French revolution, his zeal cooled in the latter part of his life. He died April 7, 1797.

Mason, John Mitchell, D. D.; an eminent American theologian and pulpit orator, was born in the city of New York, March 19, 1770. He entered Columbia college, in that city, and was graduated in May, 1789, with the reputation he ever afterwards sustained, of a thorough classical scholar. Under his father, a learned and respectable clergyman of the Presbyterian denomination, he then prepared himself for the sacred ministry, until the year 1791, when he left his native country, in order to complete his education at the university of Edinburgh. Here he attended the most celebrated courses of lectures connected with divinity, and formed valuable and distinguished acquaintance. In the theological societies he made himself conspicuous by the vigor of his understanding, the energy of his elocution, and the rigor of his doctrines. Towards the end of the year 1792, he was obliged to return to New York, by the death of his father, whom he soon succeeded in the Scotch Presbyterian church in Cedar street. In this situation, he confined his attention almost entirely to the benefit of his immediate flock, until the year 1798, when he composed and published a series of Letters on Frequent Communion. It was, before, the practice of the associate reformed churches of North America, to commemorate the Redeemer's death only twice, and in some places only once, in each year. The effect of his able appeal was, that most of the churches relinquished their ancient practice, and adopted that of celebrating the Lord's supper four times, and, in other cases, six times, yearly. In 1800, he conceived the idea of a public theological seminary, to be established by the authority, and to continue under the superintendence, of the general synod of the associate reformed church. The plan which he digested was carried into operation, by his own agency and influence, in 1801. The synod appointed him their professor, and, with their sanction, he visited Europe for the purpose of procuring a library. After his return, he zealously discharged the duties of his office until he was constrained to leave it by the decline of his health. In 1810, he dissolved his pastoral relation with the Cedar street church, and formed a new congregation, with whom he took possession of the Murray street church, when it was opened, in 1812. In 1811, he accepted the appointment of provost of Columbia college—a station which he filled for five years. The variety and severity of his labors at length affected his health so seriously, that he resigned his provostship, and, in 1816, repaired to Europe to recruit his debilitated frame. He returned towards the end of 1817, in better condition, and preached and taught again with characteristic force and success. But weakness and exhaustion soon recurred; two paralytic attacks in 1819, admonished him to seek comparative repose. In 1821, however, he undertook the charge of Dickinson college, in Pennsylvania, and in this his strength again failed. In the autumn of 1824, he returned to New York, where he lingered, the shadow of what he had been, until the period of his death, the last week of 1829, in the 60th year of his age. Doctor Mason possessed uncommon powers as a preacher and controversialist, acquired great celebrity for erudition and zeal as a teacher, and deserved esteem for his domestic virtues; but he was harsh and intolerant as a theologian, and of an overbearing spirit, proportioned, as it were, to the robustness of his faculties of mind and body. The principal works of doctor Mason, besides his Letters on Frequent Communion, are a Plea for sacramental Communion on Catholic Principles (1816), Essays, Reviews, &c., which are to be found in the Christian's Magazine, together with a number of Sermons, Orations, &c., published at different times. His funeral discourse on general Alexander Hamilton is a specimen of his ability in that department of composition.

Mason's and Dixon's Line. (See *Mason, Charles.*)

Masonry, Free; a term applied to the organization of a society, calling themselves *free and accepted masons*, and all the mysteries therewith connected. The society, if we can treat as one a number of societies, many of which are unconnected with each other, though they have the same origin, and a great similarity in their constitution, extends over almost all the countries of Europe, many of America, and some other parts of the globe. According to its own peculiar language, it is founded on "the practice of social and moral virtue." Its character is charity, in the most extended sense, and "Brotherly Love, Relief and Truth" are inculcated in it. Like every other society of any magnitude, it has been the object of hyperbolical encomium from its friends, and obloquy from its enemies. Like every other society of any duration, it has been subject to the influences of human frailties, among which vanity always takes a prominent part. Like any other society founded on general principles, and, at the same time, well organized, it has, at particular times, been subservient to the production of much good, and at others of much evil, according to the different purposes for which it has been employed, and, like every other society, which ever flourished, must sink with the lapse of years and the changes in the spirit of society. For about twenty years, much has been written for and against free-masonry, and illustrative of its history, ritual tendency, benefits and dangers; from a view of which, many of the uninitiated think themselves justified in maintaining that there neither are secrets preserved in the society, nor any moral principles inculcated, which are not of universal obligation, particularly as several of such works have been published by seceded members themselves; whilst most masons, on the other hand, maintain that the true secret was never yet divulged. There are, however, even masonic writers, who warmly defend the society, and yet call the secret signs and rites of masonry accidental and unimportant. (See, for instance, the article *Freimaurer*, in the German *Conversations-Lexicon.*)—No well informed mason will believe that the history of his society begins with the creation, as Mr. W. Preston gravely asserts, any more than a reflecting Catholic of the present time will believe that the double power of the pope, spiritual and wordly, is proved from St. Peter's having two swords at the time of Christ's capture, or from the ground on which it was put by Boniface VIII, that Genesis begins "in the beginning," and not "in the beginnings." Nor does the well informed mason credit the stories that his society originated with the Greek mysteries, or even the Egyptian, or that it descends from the Dionysian architects, from the Pythagorean society, or from the Essenes. These institutions had little of the character of a continued and connected whole, and nothing appears to indicate that free-masonry can be considered as descending from any one of them. In Lawrie's History of Freemasonry (Edinburgh, 1804), more may be found respecting this point. As little can it be proved that the masons sprung from the Templars, or any other order of the middle ages, or, at a later time, from the Jesuits (q. v.), or indirectly from the Rosicrucians (q. v.). Part of these stories have been caused by the histories of the order (*historiæ ordinis*), purposely invented for the sake of the rites of the society, in which, however, is also concealed, under ciphers, the true history of the (so called) higher degrees. Nor is it the fact, that the free-masons originated from the common corporation of masons, for long before the origin of the corporations of the separate crafts in any part of modern Europe, there existed corporations or societies of artificers, who united all the crafts necessary for building (and we must keep in mind what the building of the middle ages was) under the direction of one or more leaders, *the architects*. Protected by the charters of the clerical and secular powers, and united in one great society for the construction of each great building, as the cathedrals, &c., these societies erected, in all countries of Europe, those gigantic monuments, generally termed *Gothic*, which excite our amazement, and, as has been remarked by doctor Henry, in his History of Great Britain, with an economy of time and expense truly surprising. We find these societies of architects every where. They were composed of members from Italy, Germany, the Netherlands, France, England, Scotland, and other countries (sometimes even from Greece), and united under very similar constitutions; for instance, at the erection of the convent of Batalha, in Portugal, about 1400; of the minster of Strasburg, 1015 to 1439; that of Cologne, 950 and 1211 to 1365; of the cathedral of Meissen, in the tenth century; of the cathedral of Milan, the convent of Monte Cassino, and of the most remarkable buildings of the British isles. That these societies of architects at last gave rise to one not occupied with actual building (*speculative* masonry, as it is called by some), appears, from a critical investigation of the history of free-masonry. The first societies of antiquity with which free-masonry appears to stand in a historical connexion, are the corporations of architects, which, with the Romans, existed under the name of *collegia* and *corpora*. It is related that Numa established the first corporations (if we may so term them) of architects (*collegia fabrorum*), with many other societies of mechanics and artificers (*collegia artificum*), after the model of the Greek societies or colleges of artificers and priests: he also instituted for them proper meetings and certain religious rites. According to the laws of the twelve tables, the *collegia* had the right to make their own laws, and could conclude certain treaties with each other, if nothing was contained in either contrary to the public laws, which was conformable with Solon's legislation. Such corporations of all kinds, particularly the crafts connected with hydraulic, naval and civil architecture, early became dispersed through all the provinces of the Roman state, went on continually increasing, and coöperated most powerfully in propagating the Roman customs, sciences, arts and laws. They, as it were, cultivated the soil, which the sword had gained. The useful arts are, of course, among the most important gifts which a civilized race can confer on the rude tribes who may be dependent on it. When an Indian tribe first concludes a treaty with the U. States, one of the points has often been a stipulation that the latter shall send a blacksmith among them. If we now remember, that the Romans were preëminently an architectural race (like most conquering nations, who have already attained a considerable degree of civilization), and that the sciences and arts, connected with architecture, include a vast range, and are intimately connected with the other attainments of an advanced civilization, we shall easily comprehend that the colleges of architects must have been of great importance. As the *collegia* were established in those early times when states were formed after the model of a family, and the religious and political constitution confusedly mingled, they had, besides their character of a society of artificers, that of a civil and religious institution. This character was retained by the *collegia*, particularly the *collegium* of architects, to the end of the Roman empire, and transplanted into the corporations of architects of the middle ages, already mentioned, because the constant mingling of religion in law, politics and science, by no means ceased in the middle ages; on the contrary, in some particulars, a still closer union was effected. As the Roman *collegia* held their meetings with closed doors, nothing was more natural than that they should become, in times of violent political agitation, the place of political parties and religious mysteries, secret worship and doctrines of all sorts. The Roman emperors of the first centuries limited the *collegia* as much as possible, but the later governments favored them so much the more. In the *corpus juris* are contained several lists of the mechanic arts, legally existing, and free from taxation, in the third and fourth centuries, among which we find those of architects, ship-builders, machine-builders, builders of *ballistæ*, painters, sculptors, workers in marble, masons, stone-cutters, carpenters, &c. There was no town at all important, no province ever so distant, where some of the *collegia*, just mentioned, did not exist, to the downfall of the Western and Eastern empires, with their peculiar constitutions, and having more or less of a political and a religious character. The corporations of artificers, whose occupations were connected with architecture, were called upon, by imperial orders, to come from all parts of the empire, to assist in the building of large cities, palaces, churches, &c. Similar artificers also accompanied each Roman legion. Such corporations also existed in Britain (where the Romans, during their conquests, built a great deal), both in the legions there stationed and in the cities. The same was the case in Spain, France, on the Rhine and on the Danube. It is true that these *collegia* vanished in Britain, with most of their works, when the Picts, Scots and Saxons devastated the country; but, in France, Spain, Italy, and in the Greek empire, they continued to flourish, and from these countries the Christian Saxon rulers of Britain, particularly Alfred and Athelstan, induced a number of artificers and architects to come to England in order to build their castles, churches and convents. Although these foreign artists, and the few who had survived the ravages of the barbarous tribes, were Christians, and though most of their leaders or directors were clergymen, yet the corporations which they formed had no other constitutions than those transmitted to them from the Roman colleges, which were spread over all Christian Europe, and the character of which is still to be learned from the *corpus juris Romani*. As the members of these corporations of architects of the tenth century belonged to different nations, and at the same time publicly or secretly to sects, widely differing in their tenets, and often condemned as heretical; in short, as they were very different in faith, customs, and manner of living, they could not be induced to go to England, and to remain there, without receiving from the pope and king satisfactory liberties and letters of protections, especially jurisdiction over their own bodies, and the right of settling their own wages. They then united, under written constitutions, founded upon the ancient constitution of the Roman and Greek colleges, and the provisions of the civil law. The different tenets of the members, the scientific occupation and elevated views of their leading architects and clergymen, naturally gave rise to a more liberal spirit of toleration, a purer view of religion, and stricter morals, than were common in those times of civil feud and religious persecution. The lofty notions of Vitruvius (their constant manual), in regard to the dignity of an architect, may have contributed to ennoble their character. Their religious tenets being often objects of suspicion to the orthodox, they were obliged to keep them secret. Secrecy, moreover, was the character of all the corporations of the middle ages, and, down to the most recent times, the corporations of mechanics on the continent had what they called *secrets of the craft*—certain words, or sometimes absurd ceremonies, by which they pretended to know each other. To this we must add, that the corporations of architects, in the middle ages, were descended from the times of antiquity, so that their societies had received, in the times when Rome adored all gods, and listened to all philosophical systems, impressions derived from the Greek philosophical schools, particularly the Stoic, united with some fragments of the Greek and Egyptian mysteries, and subsequently modified by notions acquired in the early times of Christianity, particularly from the Gnostics, which led to certain doctrines and sacred ceremonies, clothed, according to the spirit of the time, in symbols, and constituting their esoteric mysteries. The watchful eye of the popes induced them to keep these doctrines closely concealed, in connexion with the real secrets of their art, and its subsidiary branches, their rude chemistry, their metallurgy, and natural philosophy, and to preserve their knowledge in forms otherwise foreign to it, if they wished to escape persecution.* The great importance which architecture assumed in those times, is to be accounted for from the enthusiasm for splendid houses of worship, in which the religious spirit of those times displayed itself to an unparalleled degree. The history of these corporations, as here given, and their connexion with the present society of free-masons, appears from what we know of antiquity, from the history of England, and from the agreement of the constitutions, symbols and customs of the present free-masons with those of the above corporations.* Three documents have also been preserved, which further prove that historical connexion, as well as the doctrines and customs of those corporations of the middle ages, in great perfection, and which must be considered as valuable portions of the history of that period.—See *Die drei ältesten Kunsturkunden der Freimaurerbrüderschaft* (2 vols., Dresden, 1819).—Before we speak of these documents, we must mention that some writers speak of the Culdees as having formed a Christian church in England for some centuries before the Saxon conquest (in 449), and sent bishops to the most ancient councils. This church was, together with the Roman civilization, suppressed by the Picts and Saxons. The Culdees were obliged to seek refuge in the wildernesses of Wales and Scotland, in Ireland, and in the small islands between Great Britain and Ireland, chiefly in Anglesey and Mona, where they continued their apostolic institutions and usages, related to those of the Oriental church. They tried in vain to convert the rude Saxon kings, but they had not the same means as Augustin, who was sent by the pope, with 40 monks, in 597, to Britain. The Culdees were now again bloodily persecuted by the adherents of the pope. In their persecution, they maintained the spirit of Christianity, and studied in solitude. They at last found access to Alfred and Athelstan. The latter gave employment to many architects, in building convents, castles, &c., and the Culdees made use of their organization, and the independence guarantied by the king, to teach them their truly apostolic principles. Usher, Ledwich and Grose treat of this subject. The old writers on the papal side of the question, are said to have purposely avoided making mention of the Culdees. A further cause is thus assigned for the superior morals which distinguished the architectural societies in the middle ages. The eldest of the documents above mentioned, is the constitution confirmed, in 926, to all the corporations of architects, by king Athelstan, through his brother Edwin, at York, the original of which, in Anglo-Saxon, is still preserved in York. The beginning reminds the reader immediately of the most ancient Oriental church. Then follows a history of architecture, beginning with Adam, and comprising quotations from some rabbinical tales, respecting the building of Babel, the temple of Solomon, with mention of Hiram, limited, however, to the information contained in the Bible; then passing over to the Greeks and Romans; mentioning particularly Pythagoras, Euclid and Vitruvius. Then the history of architecture, and the oldest corporations in Britain, is told, agreeably to the accounts of the best historians, and, among other things, is mentioned, that St. Albanus, an honorable Roman knight, patronised the art about A. D. 300, settled the fundamental institutions of the masons, procured them employment, wages, and a charter from the emperor Carausius, according to which they should form a society in Britain, under the government of architects. The devastation of the country, and the destruction of the edifices by the northern tribes and the Angles and Saxons, is related, and how the pious Athelstan had resolved to restore the ancient and venerable society. After this follow the 16 most ancient laws, which agree exactly with every thing that careful investigation can find in the *corpus juris* relating to the college of architects. This constitution was preserved in England and Scotland, in its essential features, until the fourteenth century, when the societies passed over into the stationary corporations in cities. It is proved by historical documents, that in Scotland and England, lodges, laboring according to these constitutions, existed in an uninterrupted series, and often admitted, as members, learned or influential men, who were not architects, including even kings (*accepted masons*). The reader will find, in the article *Masons*, in Rees's Cyclopædia, an account of the chief events which happened to the society of masons in England, and of its most influential members, the grand-masters, &c. The society of masons decreased, and sunk more and more, as the times changed. In 1717, we find four lodges existing, in which the old symbols and customs were still preserved; most of their members were merely *accepted* masons. So far extends the first period of masonry. In 1717, an essential change was made by three members belonging to some of the four lodges just mentioned, Desaguliers, James Anderson and George Payne. They changed the society into one which had nothing more to do with building,* but of which "brotherly love, relief and truth" were to be the essential characteristics. By retaining the name and customs of the ancient fraternity, the new lodges retained the privileges and charters of those societies. They further thought it well to establish a centre of union and harmony in one grand-master, the eldest mason, who, at the same time, was a master of a lodge; to constitute themselves, *pro tempore*, one grand lodge; to renew the quarterly communications of the brethren; to hold the annual meeting and the festival; and to elect a grand-master from among them, until they should have a brother of high rank at their head. In 1721, James Anderson was charged to remodel the old constitutions, and to form thus a general book of constitutions, which alone should be valid for all the special lodges, in future to be established under the authority of this grand lodge. The constitution of York was made, by him, the basis, though he compared a number of other constitutions. In 1721, his draft was accepted, with some changes, acknowledged, and printed in 1723. In 1738, a new edition was printed. In the editions of 1756, 1784, and in the latest book of constitutions of the grand lodge of old masons at London, united in 1813 (of which the

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* It is by no means improbable that, in these barbarous ages, their secret doctrines may have degenerated, and become mixed with corrupt notions, as was the case with the Society of Templars.

* The architects, with their assistants and pupils, formed associations, called *Hütten*, or *lodges*. At an assembly held at Ratisbon, in 1459, it was agreed that a grand lodge should be formed at Strasburg, as the place of general assembly, and that the architect of that cathedral, for the time being, should be the grand-master. The society was composed of masters, companions and apprentices, who had a secret word, with signs of recognition. In 1464 and 1469, there were general assemblies at Strasburg; but they were afterwards neglected for some time, until the emperor Maximilian I, being at that city in 1498, granted them certain privileges, by charter or diploma, which were renewed and confirmed by subsequent emperors. These diplomas, together with the regulations and statutes, were kept in the house of the architect of the cathedral, in a chest with triple locks, of which the two oldest masons kept the keys, so that it required the presence of all before the chest could be opened. These documents were in existence until the French revolution, when they were destroyed, with many other papers, to prevent their falling into the hands of the Jacobin commissioners. Their rules inculcated the necessity of leading moral lives; submission to the masters, whom the companions served for five or seven years; attention to their religious duties; and charity to the poorer brethren, &c. Among the symbols were the square, the plumb-rule and the compasses, which are distinguishing marks of the officers of a free-mason's lodge at this day.

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* Sir Christopher Wren was the last grand-master of the ancient fraternity.

second part appeared in 1815), the traits of the ancient York instrument are always to be recognised. The following are the most important duties (*charges*) of the masons, as they appear in the edition of 1784, and, with few alterations, in the constitutions of 1815: The mason is bound to obey the laws of morality, and, if he understands the principles of the society, he will neither be an atheist nor a profligate. Though the masons of ancient times were obliged to profess the religion of their country, whatever that might be, it is considered now more beneficial to bind them to that religion alone in which all men agree, and to leave to each his peculiar opinions; they are to be men of probity and honor, whatever may be their differences in name or in opinion. By this, says the constitution, masonry becomes the central point of union, and the means of establishing friendship among persons who, without it, would live in continual separation. The mason is to be a peaceable subject or citizen, and never to allow himself to be involved in riots or conspiracies against the public peace and the welfare of the nation. No private hatred or feud shall be carried to the threshold of the lodge, still less political or religious disputes, as the masons, in this capacity, are only of the above-named general religion: masons are of all nations and tongues, and decidedly against political feuds, which never have been favorable to the welfare of the lodges, nor ever will be. The second of the above-mentioned documents was written under Henry VI of England, first printed in the Gentleman's Magazine, in 1753, p. 417 et seq., and, since then, has been repeatedly reprinted. The last of the three documents is the ancient mode of admitting masons, as it is still exercised by all the masons of the ancient English system. It contains some customs of the Roman colleges, and of the most ancient Christian monks and ascetics. From this ritual, that of the new English grand lodge, contained in Browne's Master-Key (London, 1802), differs in some important particulars, though they agree in spirit. The first lodge in France, after the English system, was established in Paris, in 1725; in Germany (in Hamburg), in 1735; in America, 1730. The more the order was extended, the less intimate became the connexion of the lodges; secessions took place; new systems were established; rivalry often occurred; to the three first degrees, of apprentice, companion and master, additional ones were added; in fact, it would be difficult at present to give a general character of masons, so numerous are their lodges, and so various their characters. They have, in many places, done much good, by assisting the poor, establishing schools, &c. In some countries, they have excited the suspicions of the government, have been prohibited and persecuted, as in Spain. Pope Clement XII excommunicated them. As we have already said, the society has been sometimes used for bad purposes. These, however, are declared, by the members, to be foreign from its spirit. According to some masons, the society requires a total renovation. During the time of Napoleon, there often existed lodges in the different regiments. The activity of the masonic societies, in the French revolution; the use of their forms by the Carbonari; their titles and ceremonies, which have too often been made mere instruments of ostentation, we have not room to describe. Of late, the society has attracted a peculiar interest in the U. States, in consequence of the abduction of a certain William Morgan, attributed to some of its members. The opponents of masonry ascribe this act to the fundamental principles of the society, and therefore consider its existence as inconsistent with the security of the community. The subject has given rise to a violent contest. The dispute, however, is so recent, and is still pursued with so much warmth, that it cannot be considered, as yet, of a historical character, so as to require to be treated of at length in a work like the present. A brief statement of the facts of the Morgan case will be found under the head of *Morgan*. We refer the reader, for further information, to Preston's *Illustrations of Masonry* (8th edition, London, 1812); Lawrie's *History of Free-masonry* (Edinburgh, 1804); Thory's *Histoire du Grand-Orient de France* (Paris, 1812); and his *Acta Latomorum* (2 vols., Paris, 1815); *Sarsena, oder der vollkommene Baumeister* (4th edition); *Macbenac*, by Lindener (3d edition, 1819); *Freimauer-Encyklopädie*, by Lenning (Leipsic, 1822, 3 vols.); *Die drei ältesten Kunsturkunden der Freimaurerbrüderschaft* (2 vols., Dresden, 2d edition, 1819).

Masora; a collection of remarks, critical, grammatical and exegetical, on the books of the Old Testament, by the Jewish doctors of the third and succeeding centuries. After they had long been transmitted orally (hence the name, signifying *tradition*), they were formed into this collection, at the beginning of the sixth century, in Tiberias, where there was a celebrated Jewish school, and, from time to time, additions were made. It is divided into the great and little: the former contains the whole collection, in separate books; the latter is an extract from the observations, which were written in the margins of the biblical manuscripts. It is important for the criticism of the Old Testament, on account of its indications of the various readings; and it contains many valuable explanations of difficult passages. It is to be regretted that the authors and collectors (the Masorites) spent their time in the most laborious and useless trifling,—counted the verbs and words, and even the consonants, in the Old Testament; found the middle word and letter of each book, and marked the verses which contain all the consonants of the Hebrew alphabet, &c. The Masora was gradually brought into a state of the greatest confusion by successive additions, and the errors of transcribers: but, in the beginning of the sixteenth century, it was once more reduced to order by Rabbi Jacob Ben Chajim, for Daniel Bomberg, a printer in Venice (*Biblia rabbinica Hebr.*, Venice, 1518, 1521, 1525—28, folio); and, a century after, John Buxtorf the elder completed the work of his predecessor (Bale, 1618, folio).

Masque, or **Mask**; a theatrical drama, much in favor in the courts of princes, during the sixteenth and seventeenth centuries, in the latter particularly in England. They are the most brilliant and imaginative among the entertainments of our English ancestors, and are traced, with much probability, to the religious processions of the church of Rome, in which various scriptural characters were represented, with some occasional tinge of burlesque solemnity. The masque, or, as we should rather call it, in its infancy, the *masquerade*, in order to distinguish it from the species of drama into which it ultimately ripened, early became a prevalent fashion among the princes and nobles of Europe. The court of Henry VIII, before the tyrant's sanguinary licentiousness had deluged it with blood, presented many of these gorgeous spectacles. According to Holinshed's chronicle, the first masque performed in England was in 1510, in the first year of Henry's reign. In 1530, a masque was performed at Whitehall, "consisting of music, dancing, and a banquet, with a display of grotesque personages and fantastic dresses." Shakspeare, Beaumont and Fletcher have frequently introduced masques into their plays. The English masques bear some resemblance to operas, as they are in dialogue, performed on a stage, ornamented with machinery, dances and decorations, and have always music, vocal and instrumental. The parts in the masques of the sixteenth and seventeenth centuries were usually represented by the first personages of the kingdom: if at court, the king, queen and princes of the blood often performed in them. James I carried to its height the glory of the masque. It had hitherto consisted of music, dancing, gaming, a banquet, and a display of grotesque personages and fantastic dresses; but it now assumed a higher character, and became "married to immortal verse." Previously, "their chief aim," says Warton, "seems to have been to surprise by the ridiculous and exaggerated oddity of the visors, and by the singularity and splendor of the dresses. Every thing was out of nature and propriety. Frequently the masque was attended with an exhibition of some gorgeous machinery, resembling the wonders of a modern pantomime; for instance, in the great hall of the palace, the usual place of performance, a vast mountain, covered with tall trees, arose suddenly, from whose opening caverns issued hermits, pilgrims, shepherds, knights, damsels and gipsies, who, being regaled with spices and wine, danced a morisco or morris dance. They were again received into the mountain, which, with a symphony of rebecs and recorders, closed its caverns, and, tumbling to pieces, was replaced by a ship in full sail, or a castle besieged." (*History of English Poetry*, sec. 44.) This glittering chaos was reduced to order by the genius of Ben Johnson; not that he was the first who united poetry with music, dancing and scenery, but he was more largely employed than any other poet of his time in this branch of the drama. In his masques, along with much that is frigid, wearisome and pedantic, may also be found much fine poetry. The masques, though they make a great show on paper, were probably not a little defective in exhibition. Sir Dudley Carleton, an eye-witness, writes to Winwood as follows: "At night, we had the queen's maske in the banqueting-house, or rather the pagent. There was a great engine at the lower end of the room, which had motion, and in it were the images of sea-horses, and other terrible fishes, which were ridden by Moors. The indecorum was, that there was all fish and no water. At the further end was a great shell, in form of a skallop, wherein were four seats, on which sat the queen and her ladies. Their apparel was rich, but too light and courtesan-like for such great ones. Instead of vizzards, their faces and arms, up to the elbows, were painted black, which was disguise sufficient, for they were hard to be known; but it became them nothing so well as their red and white; and you cannot imagine a more ugly sight than a troop of lean-faced Moors." (Winwood's *Memorials*, II, 44.) Milton's Comus is the most beautiful of the productions which bear the name of masque. This exquisite specimen of lofty thought, beautiful imagery, and splendid versification, is said, by Gifford, to be defective as a masque, and, by D' Israeli, not to be a masque at all, referring, probably, to the deficiency of music and machinery; but Warton says, with truth, "The intrinsic graces of its exquisite poetry disdained assistance; and, whether Comus be or be not deficient as a drama, I am of opinion that our author here is inferior only to his own Paradise Lost." Puritanism banished the Muses, and the masques in their train.

MASS; properly speaking, the prayers and ceremonies which accompany the consecration of the eucharist. The word is used generally for all that part of the Catholic service in which the eucharist is offered. The Latin word is *missa*, which name, in early times, designated the public service of the Christians, celebrated under the direction of a *leitourgos* (see *Liturgia*), generally the bishop himself, with the assistance of several servants of the altar (the elders, deacons and others), in presence of the whole community. According to the example given in the Acts of the Apostles (ii, 41—42), and other passages, this service consisted of prayers, singing (chiefly psalms), reading of portions of the Bible, preaching, and the celebration of the Lord's supper. The people not only understood what was done, but also sung, responded, prayed, and received bread and wine in the Lord's supper. Very early, however, through the so called *disciplina arcani* (see the Catholic part of the article *Lord's Supper*), it became customary, and, according to many, universal, during the first three centuries, to divide the divine service into two chief parts, by separating the rest of the service from the celebration of the eucharist. Only the faithful, who lived actually in communion with the church, were allowed to be present at the latter: at the former, also, the *catechumens* (q. v.), the penitents, and even unbelievers; but these classes were dismissed before the celebration of the eucharist was begun, by the words *Catechumeni, exite, missa est* (i. e. *concio*, the meeting), or *Si quis catechumenorum remanserit, exeat foras.* Thus they were dismissed (*dismissio, missio, missa*), from which circumstance, in the sequel, the whole service received its name; hence, again, the division of *missa catechumenorum*, and *missa fidelium.* Quite a similar dismission takes place in the meetings of most Protestant sects in the U. States, before the Lord's supper, when all persons, not in communion with the church there assembled, or with any other, are impliedly requested to leave the church. In the article *Lord's Supper*, the reader will find the Protestant and Catholic views respecting the eucharist, the sacrifice of mass, the holy mysteries of the mass, and the decrees of the council of Trent respecting this, the most essential point of Roman Catholic service. It remains, therefore, to give here an account of the celebration of the mass only. When the number of the faithful increased, and communities of Christians rose, not merely in the cities, but also in the villages, the celebration of divine service was intrusted also to priests, who at first officiated only before the whole community, and on days appointed for the purpose; at a later period, also, on ordinary days, and even alone, for their own benefit, with the assistance of one altar-servant only. Thus originated, with the high or solemn mass, also the low or private mass, performed by the priest, assisted by one altar-servant only. The Protestants consider this, even according to the Catholic doctrine of the mass itself, a great abuse; and many Catholic authors have concurred with them, while others maintain that it is indispensable, as it would be impossible otherwise to consecrate the host for the sick, &c.; and, besides, say they, the hermits in the deserts must have celebrated private mass. This, of course, is arguing on the ground that the mass, in the times of the early anchorites, was already developed. If the mass is of such supernatural efficacy as a great part of the Catholics consider it; if it is an actual and repeated sacrifice of Christ for our sins,—private masses may also be admissible, though the form of the celebration, founded on the supposition of the presence of the people, may be inconsistent with them. The celebration of the eucharist or the mass separate from the preaching, became more and more common, and the actual participation of the people in it gradually lessened. The responses, &c., were made by a servant of the altar, and the priest alone took the sacred elements,—changes to which the people accustomed themselves the more readily as the knowledge of the ancient languages, in which the masses were performed (in the Oriental church the Greek, and in the Latin church the Latin), became more and more limited. The choir of priests and servants, including, at a later period, the singers and musicians, took the place of the people, and the whole difference of the solemn and the private mass came to consist in this circumstance only, the people having ceased to take any part in the mass, and the sermon being delivered separate from this ceremony. This state of things has remained to this day, at least in by far the greater number of Catholic countries. The mass, then, at present consists of four or three chief parts: 1. the introduction, which forms its chief part, is called the *evangelium*, and formerly constituted, with the sermon, the mass of the catechumens; 2. the *offertorium*, or sacrifice; 3. the consecration, or transubstantiation; 4. the communion. These four chief parts, of which the latter three are considered the most essential, are composed of several small parts, each having its proper denomination; they are prayers, songs, shorter and longer passages of the Holy Scriptures, and a number of ceremonies, which, as the essential point of the mass is the sacrifice of the Lord, consist partly of symbolical ceremonies, commemorative of important circumstances in the Savior's life, or signs of devotion and homage paid to the presence of the Lord in the host. The order of these ceremonies, and of the whole celebration of the mass, is given in the missal (q. v.), or mass-book. The masses are modified according to many circumstances. Thus certain parts are changed according to the saint in honor of whom the mass is celebrated, or the seasons of the year connected with different events in the Savior's life, or the purpose for which the mass is said, as the *missa pro defunctis* (mass for the dead), or that intended for the invocation of the Holy Ghost, and others. Deviations from the established rite gave rise to the *missa bifaciata*, *trifaciata*, *multifaciata*, formed by uniting two, three and more masses under one canon. *Missa præsanctificatorum* is that in which the host has been consecrated one or several days beforehand, which is more common in the Greek church than in the Latin. *Missa sicca*, or *dry mass*, is that which was celebrated without wine; for instance, on board of vessels, in order to prevent the spilling of the blood. It is no longer in use. The *mass of the day* is such as is proper to the season, or to the feast which is celebrated. *Votive mass* is an extraordinary mass, besides that of the day, rehearsed on some extraordinary occasion. *High mass* is celebrated by a deacon and sub-deacon, and sung by the choristers. Besides these, there are different masses, according to the different rites: the *Greek mass*, the *Latin mass*, the *Roman* and *Gregorian mass*, *Gallican*, *Gothic mass*, &c. One of the greatest objections of the Protestants against the Catholic religion is the doctrine of the mass. They are offended with the doctrine that the sacrament of the Lord's supper is made, in the mass, a sacrifice continually repeated for the reconciliation of sins, this appearing to them as the application of Jewish and heathenish ideas of sacrifice to the Lord's supper, while the Bible declares that Christ has offered himself by his death on the cross, once for all, for the atonement of sins, and the Lord's supper is no sacrifice to God, but the offering of God's grace to men. To this the Catholics reply that, according to Scripture and tradition, the eucharist is a sacrifice; that the body and blood of Christ are actually present in the eucharist (see *Lord's Supper*), and that "they do not offer a sacrifice different from that of the cross; that it is Jesus Christ himself, who offers himself through the hands of the priests; that he therefore is the principal priest or pontiff and victim, as he was likewise on the cross. Can we," continues the Catholic *Dictionnaire de Théologie* (Toulouse, 1817), from which the foregoing passage is also taken —"can we testify our gratitude to God better than by offering to him the most precious of all the gifts which he has made to us—his only Son, whom he deigned to grant us, and who gave himself as a victim for our redemption? We then say, with David, 'For all things come of thee, and of thine own have we given thee.' (*I Chron.* xxix, 14.) We therefore have full ground to hope that God, touched by this oblation, will grant us new grace," &c. Intimately connected with the dogma that the mass is a sacrifice is the dogma of the masses for the dead, which is equally offensive to the Protestant. As the Catholic church maintains that the believers who depart from this world without having sufficiently atoned by suffering for their sins, are obliged to suffer in the other world a temporary punishment, it also believes that the sacrifice of the mass, that is, of Jesus Christ, may be made efficacious for the remission of this punishment. Catholics admit that the abuses which have been connected with the mass are enormous; but, say many of them, they have been abolished by the council of Trent. Protestants, however, cannot find that these abuses have been eradicated, though they may have diminished. If in Catholic countries —perhaps without exception—masses for the dead can be procured for a certain fee, so that the persons for whom they are said are either entirely released from purgatory, or many years of their pain remitted, this special application of the great offering of Jesus seems to them to deviate most essentially from the true meaning of the scriptures. In Italy, for instance, it is very common to find the power of releasing from purgatory a certain number of souls for a certain number of years, attributed to a number of masses, said at particular altars; and the cheapness of the price for which such great benefit can be procured for the souls of the departed is not unfrequently extolled. The dispute relative to the mass is by no means restricted to the two parties, the Protestants and Catholics. Not a few of the Catholics are desirous of essential changes, particularly the disuse of a language which is not understood by the people, and of many masses connected with legends, evidently and acknowledgedly fictitious. Thus Mr. von Reichlin Meldegg, professor of ecclesiastical history and dean of the (Catholic) theological department at the university of Freiburg, has lately advocated these and other changes, for which, of course, he has been violently attacked by the Roman party. (See a pamphlet entitled *Wider römische Verketzerungssucht. Gutachten eines aufrichtigen Canonisten* (Against the Disposition of Rome to proscribe for Heresies. Opinion of a sincere Canonist), Leipsic, 1831.)—The advocates of the use of a language, in the mass, which is not understood by the people, maintain that the liturgy of the mass was not always foreign to the people; that it was translated into Ethiopian, Armenian, Coptic, Russian, Sclavonic, Illyrian, &c., but that it has not been changed as the languages went on changing. "So that the Oriental Christians," they say, "understand the liturgy in use among them no better than the European nations the Latin liturgy."* (See *Dict de Théol.*, vol. v, p. 291.) Gregory I, or the Great (he died about 604), first settled the ceremonies and usages of the mass.

Massa-Carrara; a duchy of Italy, bounded principally by Tuscany and the duchy of Modena, celebrated for the production of the beautiful white Carrara marble, much used in sculpture. It is dependent on the duchy of Modena.

Massachusetts; one of the U. States, bounded north by Vermont and New Hampshire, east by the Atlantic ocean, south by the Atlantic, Rhode Island and Connecticut, and west by New York; lat. 41° 15′ to 42° 54′ N.; lon. 69° 54′ to 73° 30′ W.; length, from east to west, 180 miles; breadth, from north to south, 96; area, 7800 square miles; population, in 1790, 388,727; 1800, 422,845; 1810, 472,040; 1820, 523,287; 1830, 610,014, viz. white males, 294,449; white females, 308,559; free blacks, 7006. The state is divided into 14 counties, and 303 towns. The principal rivers are the Connecticut, which is navigable by steam-boats of small draught, the Merrimac, Charles, Concord, Blackstone, Miller's, Chickopee, Deerfield, Westfield, and Housatonic. All these rivers abound in falls, which afford valuable mill-seats, appropriated to manufacturing operations. The chief mountains are a part of the Green mountain ridge, which extends from north to south through the western part of the state. The most elevated summits of this ridge are Saddle mountain, near the north-western angle of the state, and Tahconick, on the western border. Mount Tom, and mount Holyoke, near the Connecticut river, are remarkable elevations, which afford, from their summits, a beautiful prospect of the surrounding country. A second ridge passes through the state near its centre. The greatest elevation of this ridge is Wachuset, in the town of Princeton. The state abounds in small lakes, which are usually called *ponds*. The largest of these are the Assawampset and Long ponds, in Middleborough, Podunk and Quabaug ponds, in Brookfield, and the Naukeag ponds, in Ashburnham. The last-named are situated more than 1100 feet above the level of the ocean; and several other ponds, in the western part of the state, have a still higher elevation. The soil, for the most part, is fit for cultivation, and much of it is well, and some of it very highly, cultivated. In the south-eastern counties, the soil is sandy, and not very productive: in the eastern and middle counties, it is in general good, though not luxuriant. The same may be said of the soil of the western parts, with the exception of extensive tracts, which are mountainous and rocky. The state is in general hilly, but, in the eastern parts of the state, the hills are of moderate elevation. The soil is well adapted to the growth of grass and fruit trees. Nearly all the fruits of temperate climates are cultivated with success, and also Indian corn, rye and other kinds of grain. The mountains of Berkshire afford an abundance of iron ore. Bog ore is found in Worcester and Plymouth counties, and it is extensively worked. Anthracite coal is found in Worcester. There is a lead mine in Southampton, to which a subterranean passage of 1000 feet in length has been opened, chiefly through solid rock. The cheapness of lead from the mines of Missouri and Illinois has suspended the works upon this mine. Marble and limestone are found in exhaustless quarries in West Stockbridge, Lanesborough and Hinsdale. The middle and eastern parts of the state abound in quarries of granite of the best description for building stone. Quarries of soap-stone are found in Middlefield. The occupations of the inhabitants are agriculture, commerce, navigation, fishing and manufacturing. Agriculture is pursued almost exclusively by owners of small farms, who labor with their own hands. The commerce of the state extends to all parts of the world. The shipping of this state is more numerous than that of any other in the Union, and, in the extent of its foreign commerce, it is second only to New York. The value of imports into the state of Massachusetts in the year ending Sept. 30, 1829, was $12,520,744, of which $12,289,308 in value, were imported in American vessels. The value of exports from the state, in the same year, was $8,254,937. The amount of tonnage entered at the ports of the state from foreign ports, in the same year, was 177,550 tons, and the amount which departed from the same ports was 140,187. Of this amount 117,608 tons entered at, and 88,593 departed from, the port of Boston. The amount of shipping owned in the state on the last day of December, 1828, employed in the foreign and coasting trade and in the fisheries, was 424,507 tons. The fisheries are chiefly of three kinds, viz. the whale fishery, which is carried on in distant seas, by ships fitted out chiefly at Nantucket and New Bedford; the cod fishery, which is carried on partly on the north-eastern coasts of the U. States, and those of Newfoundland and Labrador; and the mackerel fishery, which is carried on chiefly along the coast. A large number of vessels and seamen are employed in these fisheries, and the produce is very great. The manufactures of cotton and woollen cloths are carried on chiefly by large and opulent companies, with machinery which is moved by water power. The capital of the state, and of all the New England states, is Boston. It has 61,392 inhabitants. The towns next in size, are Salem and New Bedford. They are rich towns, extensively engaged in foreign commerce, the former particularly in the India trade, and the latter in the whale fishery. Nantucket is a town also largely engaged in the whale fishery. The other chief commercial and fishing towns, are Newburyport, Marblehead and Plymouth. The chief manufacturing towns are Lowell, Taunton, Springfield and Waltham. There are many other handsome and flourishing inland towns, among which are Worcester, Northampton and Pittsfield. The executive government of the state is vested in a governor, lieutenant-governor, and council, who are chosen annually. The legislature consists of a senate, of 40 members, chosen annually, and a house of representatives, of one or more members from each town (with the exception of a few of the smaller towns), consisting, in all, of 500 or 600 members, when the towns exercise their full privilege of choosing members. The judiciary consists of a supreme judicial court of four judges, and a court of common pleas of the same number of judges, who hold their appointments during good behavior. Both courts are held, at stated periods, in each county. The university, at Cambridge, is the most liberally endowed literary institution in the U. States, and has given to the country the greatest number of literary men. It has a president, eight professors, and six tutors and other teachers, besides four professors of the medical school, three of the theological school, and two of the law school. It has a library of 36,000 volumes of choice books. There are two other colleges in the state, viz. Amherst college, near Northampton, and Williams college, at Williamstown, each of which has a president, three or four professors, and two tutors. There is a richly endowed and flourishing theological seminary at Andover. It has four professors, who are supported by the income derived from permanent funds, and has commodious buildings for the residence of the professors and students, and for other purposes. There are in the state 43 incorporated academies, part for male, and part for female pupils. There are several well conducted private schools, of considerable celebrity. The most distinguished of these is the Round Hill school, at Northampton, which has been highly successful, from the enlightened views and varied accomplishments of its proprietor, and the liberal provision which he has made for the best instruction in the various departments. The means of common education are provided at the public expense throughout the state. Public schools for instructing all children whose parents choose to send them, are supported in all the towns. In the large towns these schools are of a high character. They are not regarded as charity schools, but as public institutions, where the rudiments of learning are acquired from the same sources by the children of the rich and of the poor. Many public improvements of various kinds have been made, chiefly by companies incorporated by the state legislature. A great number of turnpike roads have been built by such companies, and the means of communication in the state have been thereby greatly improved. They have, in general, been productive of little emolument to their proprietors, though they have been highly beneficial to the public. Many bridges have been built, by companies of a similar kind, over the Connecticut and other rivers, and over the arms of Boston harbor. Middlesex canal, which unites the waters of Merrimac river with Boston harbor, is the most ancient work of the kind in the country. It is 26 miles in length, and is well built with durable stone locks. Blackstone canal is 45 miles in length, and extends from Worcester to Providence. There are two canals with locks for passing the falls on Connecticut river, one at South Hadley and the other at Montague. The Hampshire and Hampden canal, from Northampton to the termination of the Farmington canal on the border of Connecticut, is yet unfinished, and is navigable only from its southern extremity to Westfield. A rail-road was constructed some years since in Quincy, three miles in length, leading from the granite quarries to the navigable part of Boston harbor. This was the first work of the kind attempted in the country, and its success has encouraged the undertaking of other greater enterprises of a similar character. Railroads are now proposed to be made, leading from Boston to Lowell, to Worcester, to Providence, and to Taunton, and the navigable water of Taunton river. (For the history of Massachusetts, see *New England.*)

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* The Catholics in Silesia have lately petitioned to have the mass said to them in the German language.

Massachusetts Bay; a large bay, situated east of the central part of Massachusetts, and bounded on the north by cape Ann, and on the south by cape Cod. (For the former province of this name, see *New England.*)

Massagetæ; a collective name given by the ancients to the unknown tribes of Northern Asia, who dwelt to the east and south of the Caspian sea, as far as the frontiers of the Persian monarchy. This region is at present the residence of the Turkestans and Karakalpaks. The name often occurs in the Scythian and Persian histories; in the latter, particularly in the campaigns of Cyrus. (q. v.) The Alans were a tribe of the Massagetæ.

Massalians. (See *Messalians.*)

Massaniello, properly, **Thomas Aniello**, born at Amalfi, gained a livelihood, in Naples, as a fisherman, and a dealer in fish and fruit. Although very poor, he had a proud and enterprising spirit. His love of freedom, and the boldness with which he expressed himself respecting the oppression which the kingdom of Naples had long endured from Spain, procured him a large faction among the common people, who admired his boldness. As he was destitute neither of eloquence nor courage, nothing but opportunity was wanting for him to appear as the head of the populace. Such an opportunity offered in 1647. Massaniello had brought a basket of fruit to the city, for which the collectors demanded the tax. He refused, and, they using force, he threw himself on the earth, and implored the people to aid him against their violence. An insurgent multitude immediately assembled, at the head of which he advanced to the tax-office, with the cry—"Long live the king, but down with the bad government." Thence the insurgents repaired to the castle of the viceroy, the duke of Arcos, and demanded that he should receive Massaniello as a colleague. In vain did the cardinal Filomarino, archbishop of Naples, seek to appease their fury; in vain did John of Austria, a natural son of Philip IV, appear in the harbor with 22 galleys; the insurrection only increased the more, and the nobility became the object of its rage. Massaniello, who had become governor of the city, caused 60 of the principal palaces to be reduced to ashes, without the least thing being saved. All marks of the royal government disappeared. Every body was suspected by Massaniello, and death followed immediately his slightest apprehension. Seven days elapsed amid these horrors, and men began to talk of capitulation. It was agreed that the taxes on fruit should be abolished, and the ancient liberties restored. The assent of the king of Spain was promised within a certain time. Massaniello, on this assurance, laid down his arms, and returned, without demanding any recompense or distinction, to his former station. But the great party, which he still possessed, making him appear dangerous to the viceroy, who was no ways disposed to fulfil his promises, this ruler resolved to get rid of him. He invited Massaniello to his own house, and probably mingled poison with his wine. This did not, indeed, kill him, but made him delirious, to which his passion for heating liquors may also have contributed. In this state the unfortunate man ran through the streets of Naples, shooting his best friends, and committing the greatest excesses. The people, who now regarded their deliverer as a new oppressor, and were excited against him by his enemies, poured forth in crowds against him, shouted applause to the viceroy, and demanded Massaniello's death. He fled for safety to a Carmelite convent; but four conspirators, formerly his friends, shot him dead, with several balls, July 16, 1647. His body was shamefully maltreated by the populace. But the true sentiments of the viceroy were soon manifested; and the people, fearing a renewal of the former oppression, again became turbulent. The martyr of liberty was now remembered; Massaniello's murderers became victims to the popular rage, his body was buried with the highest marks of respect, and even, for some time, held as sacred. Naples remained still convulsed, but nothing further was effected by the people.

Masséna, André, duke of Rivoli and prince of Esslingen, marshal of France, &c., was born in 1758, at Nice, and rose from a common soldier to the rank of commander. At the commencement of the French revolution, he was an inferior officer in the Sardinian troops; but, in 1792, when the warriors of the new republic had ascended mount Cenis, he joined their ranks, soon distinguished himself by his sagacity and courage, and was made a commissioned officer, and, in 1793, general of brigade. Here he learned, without a master, the science of war, in the skirmishes. In April, 1794, he was appointed general of division, and took command of the right wing of the Italian army. He was the constant companion in arms of Bonaparte, who, after the successful battle of Roveredo (1796), against Beaulieu, called him the favorite child of victory. The commander-in-chief sent him to Vienna to conclude the negotiations for peace, and, in 1796, to Paris, to procure the ratification of the treaty. While Bonaparte was in Egypt, Masséna and Moreau were the hope of France. In 1799, Masséna displayed his ability as commander-in-chief in Switzerland. After having opened the war with success, he was forced to fall back to the Albis, on account of the ill fortune of Jourdan on the Danube. Here he took a strong position, watching his opportunity, and, by the battle of Zurich (September 25), prevented the junction of Korsakoff and Suwaroff, who had already ascended mount St. Gothard. This battle, the first that the Russians had lost in the open field for a century, decided the separation of Russia from Austria, and saved France. After Masséna had reconquered the Helvetian and Rhætian Alps, he was sent to Italy to check the victorious career of the Austrians. He hastened, with the small force which could be assembled, to the support of Genoa, his defence of which is among his most remarkable achievements. Ten days before the battle of Marengo, when all his resources were exhausted, Masséna obtained an honorable capitulation. The consul Bonaparte, who now returned to Paris, gave him the chief command of the army. Peace soon followed. Masséna was chosen member of the *corps-législatif*, by the department of the Seine, and, in 1804, was created marshal of the empire. In 1805, he received the chief command in Italy, where he lost the battle of Caldiero. When the arch-duke Charles was compelled, by the ill success of the German arms at Ulm, to retire to Inner Austria, Masséna pursued him, but was unable to gain any advantage over him. After the peace of Presburg, Masséna was sent by Napoleon to take possession of the kingdom of Naples for Joseph, and captured Gaëta. After the battle of Eylau, in 1807, Napoleon summoned him to Poland, to take the command of the right wing of the French army. After the peace of Tilsit, war having broken out in Spain, Masséna took the field with the title of duke of Rivoli; but, in 1809, he was recalled to Germany. He was present in the battles of Eckmühl, Ratisbon, Ebersberg, Esslingen and Wagram. At Esslingen, his constancy and firmness saved the French army from total destruction; and Napoleon rewarded him with the dignity of prince of Esslingen. After the peace, he hastened to Spain, to deliver Portugal from the hands of the British. Wellington retired before him, and took a strong position at Torres Vedras, for the defence of Lisbon, till want of provisions made it impossible for the French forces to hold out longer. Masséna was at length obliged to retire. Napoleon recalled him from Spain, and, in 1812, left him without a command. In 1814, he commanded at Toulon, declared for Louis XVIII, and was created commander of the order of St. Louis. At the landing of Napoleon, in 1815, his conduct in Toulon was by no means doubtful. When the emperor was reëstablished, he swore allegiance to him, and was made peer, and commander of the national guard at Paris, and contributed much to the preservation of tranquillity in the city, during the turbulent period which preceded the return of the king. He lived afterwards in retirement, and his death was hastened by chagrin at the conduct of the royalists. He died April 4, 1817.

Massillon, Jean Baptiste, one of the greatest pulpit orators of France, was born, in 1663, at Hières, in Provence, entered, in his 17th year, the congregation of the oratory, and became a general favorite by his pleasing manners, which, however, excited envy. He was accused of some amours, and attempts were made to exclude him from the congregation, and it is said that he retired, for some months, to the abbey of St. Fond. The applause with which his funeral sermon on the archbishop Henri de Villars was received, induced the general of his congregation, La Tour, to call him to Paris. He was obliged to obey, and, against his inclination, to ascend the pulpit, where his genius soon showed itself, in all its power and peculiarity. According to some, an answer to a pastoral letter of the cardinal Noailles, which Massillon drew up in the name of his convent, attracted the attention of the cardinal, in compliance with whose order he returned to the oratory. The applause which he met with in Paris, even at court, was almost without example. The effect of his *Sermon du petit Nombre des Élus* was almost miraculous. Massillon spoke with that powerful simplicity which can be resisted only by utter want of feeling. After he had preached the first time at Versailles, Louis XIV, who was famous for the happiness of his compliments, addressed him with the words, "On hearing other preachers, I have often been much pleased with them, but having heard you, I was much displeased with myself." His delivery contributed much to the effect of his eloquence. With apparent artlessness, nay, even negligence, he produced a greater effect than others with studied art. The famous actor Barron once exclaimed, after hearing one of Massillon's sermons, "There is an orator; we are but actors." On account of his amiable temper and manners, he was chosen to reconcile cardinal Noailles with the Jesuits; but he found that it was much easier to convert sinners than to reconcile theologians. The regent appointed him, in 1717, to the see of Clermont, which he could not have accepted, had not a friend of his paid the expenses connected with it. In the year following, he was chosen to preach before Louis XV, then nine years old, and wrote a series of sermons, so famous under the title of *Petit-Carême*, which are masterpieces of pulpit eloquence. They are remarkable, also, for the political truths which they contain; among others, that the monarch is made for the people, who appointed him, in conformity with the order of God; that not the prince, but the laws, should rule, of which the monarch is but the minister and guardian. In 1719, Massillon was chosen a member of the academy. Cardinal Dubois procured him the prelacy of Sevigny. His last discourse in Paris was the funeral sermon on the duchess of Orleans. From that time, he never left his diocese, where his virtues, particularly his charity, had procured him the reverence of all. He died in 1742. His sermons are distinguished for simplicity, knowledge of the human heart, an artless flow of eloquence, natural and lively imagery, richness of ideas, perspicuity and warmth. They awaken virtuous feeling, and not controversial ardor. The nephew of this distinguished man published a complete edition of his uncle's works (1745 et seq.; reprinted at Paris, in 1762, in 13 vols., 8vo.; and at Lyons, Leroy and Lusand, in 15 vols., 12mo.).

Massinger, Philip, a distinguished English dramatist, in the beginning of the seventeenth century, was the son of a retainer of the earl of Pembroke, and was born at Salisbury, in 1585. He studied at Oxford, but quitted the university without taking a degree, in consequence, perhaps, of his having become a Roman Catholic. Little is known of his personal history, yet he appears to have been intimately connected with the wits and poets of his time, in conjunction with some of whom, as Fletcher, Middleton, Rowley and Dekker, he composed some of his dramas. He died in 1639. As a dramatist, Massinger is more natural in his character, and poetical in his diction, than Jonson or Cartwright, and some critics rank him next to Shakspeare. In tragedy, however, he is rather eloquent and forcible than pathetic; and, in richness and variety of humor, his comedy can by no means vie with that of his great master. His plays were published collectively, by Mr. J. M. Mason and Mr. T. Davies, in 1779, 4 vols., 8vo.; but the best edition is that of Mr. W. Gifford, with notes and a life of Massinger (4 vols., 8vo., 1805).

Mast. (See *Ship*.)

Master and Servant. In legal acceptation, a servant is one who owes his services to another for a limited period, but not for life, or who, in other words, is not a slave. Servants consist of two classes, namely, those who receive wages, and apprentices. The contract for service, in the respective cases, is quite different: in each, the servant is bound to render service, but in one the master is bound to pay the stipulated wages; in the other, to give instruction. The master is answerable for the acts of his servant, done by authority of the master. If the servant does an injury to another, directly consequent upon the employment about which he is set by the master, the latter, as well as the servant, is answerable in damages to the party injured, whether the injury arise from want of honesty, skill or care. But the master is not answerable for any mischievous, fraudulent or negligent act of one who is his servant, if it is not done in the employment or by the authority of the master. Thus where a servant wilfully drove his master's carriage against another, and injured it, it was held, after much deliberation, that the master was not answerable, for it was stepping aside from the employment about which the servant had been set, and was not authorized by the master. Where one servant employs another, the master is answerable for the one so employed by his authority. The contract for hire gives the master or employer no authority whatever for the corporal punishment of the servant or person employed. If he is negligent, or in any respect in fault, the remedy is on the contract. (As to the other description of servants above mentioned, see article *Apprenticeship*.) The terms of apprenticeship entitle the master to the services of the apprentice for the time limited in the indentures of apprenticeship, and impose upon the master the duty of providing for and instructing the apprentice. The master has the right of moderately correcting the apprentice; but, in case of ill treatment of the apprentice by the master, or neglect to instruct him in the trade or business proposed to be taught, the law ought to provide some immediate remedy, in case of the stipulations in the articles of apprenticeship being insufficient to meet the case; and such provisions are introduced into many codes of laws, though other codes are deficient in this respect, and the apprentice is condemned to suffer years of bondage and cruelty, and arrives at manhood without instruction, or the habits likely to render him a useful or happy member of the community. On the other hand, the apprentice may be perverse, vicious, idle and ungovernable; and the laws of some states make provision that, in such case, the master may be discharged from his obligations. As to the liability of the master for the acts of the apprentice, they are the same as in respect to other servants.

Master in Chancery. The masters in chancery are assistants to the lord chancellor and master of the rolls; of these, there are some ordinary and others extraordinary: the masters in ordinary are 12 in number, some of whom sit in court every day during the term, and have referred to them interlocutory orders for stating accounts, and computing damages, and the like; and they also administer oaths, take affidavits, and acknowledgments of deeds and recognizances: the masters extraordinary are appointed to act in the country, beyond ten miles' distance from London.

Master of Arts. In the German universities, the title of *magister artium* is an academical honor, conferred by the philosophical faculty, after a previous examination in the general sciences, particularly philosophy, philology, mathematics, physics and history. The word *magister*, connected with a qualifying phrase, was used among the Romans as a title of honor; as, for instance, *magister equitum* (*see the next article*), but its present meaning must be traced to the time of the establishment of the oldest universities. Regularly organized faculties were not then known, as they now exist in the universities of the continent. The whole circle of academic activity was limited to the seven liberal arts (see *Art*): the teachers were called *artists*; the body of teachers, the *faculty of artists*; and they who received public honors on the completion of their course of studies, for their diligence and knowledge, and had already received the degree of *baccalaureus*, were called *magistri arti-*

um (masters of the liberal arts)—a title with which that of doctor of philosophy was afterwards joined. As the origin of this dignity is more ancient than that of doctor, it is still placed before it in most of the German universities. The precise period of its introduction is not known; but even in the twelfth and thirteenth centuries, the honor was so highly esteemed in France, that the most distinguished men were eager to obtain it. Since that time, its dignity has been greatly diminished. This title is to be distinguished from the *magister legens*, that is, one who has obtained the right, by public disputations, to deliver lectures. In the English and American universities, the title of master of arts is intermediate between those of bachelor of arts and doctor.

Master of the Horse (*magister equitum*); the commander of the cavalry among the Romans. He was among the high extraordinary magistrates, and was appointed by the dictator immediately after his own election. He was next to the dictator in rank, in the army, and had almost the same insignia with him. He was also permitted to mount his horse in the city.

Master of the Ordnance; a great officer, who has the chief command of the king's ordnance and artillery.

Master of the Rolls; a patent officer for life, who has the custody of the rolls of parliament, and patents which pass the great seal, and of the records of chancery, &c. In the absence of the chancellor, he sits as judge in the court of chancery; at other times, he hears causes in the rolls chapel, and makes orders; he has a writ of summons to parliament.

Master-Singers. Between the slavery of the Eastern castes, which bind men immutably to the occupations of their fathers, and the perfect freedom of pursuit with us in the West, stand, as it were, the corporations of the middle ages. The lawlessness of the times compelled men of the same occupation to unite in societies for their mutual protection; and, being so united, their disgust at the wild disorder of the period led them to subject themselves to rules even of a minute and pedantic strictness. These habits of constraint extended their influence beyond the useful arts to the fine arts, and even to poetry itself. In the thirteenth century, poetry was a favorite occupation at courts and among the knights; but, with the beginning of the fourteenth century, this peaceable disposition ceased almost entirely, and incessant feuds almost every where ensued. Industry and the arts, however, grew up behind the walls of the cities (q. v.), and the corporations of citizens were established. During the long evenings of winter, the worthy burghers of the German cities assembled to read the poems of the minstrels. Some of the hearers were naturally led to try their own skill in verse; others followed; and the spirit of the age soon imbodied these votaries of the muse in corporations, or, at least, societies after the fashion of corporations. Like the other corporations, they laid claim to a very early origin. It is well settled that the emperor Charles IV gave them a charter and a coat of arms. They generally called 12 poets, mostly of the time of the war on the Wartburg (q. v.), their *masters*; hence their name *master-singers*. They preferred, however, the more modest name of *friends of the master-song*. They met at certain days, and criticised each other's productions, in which external correctness seems to have appeared to them the chief object; few, indeed, had an idea of the difference between poetical and prosaical ideas or expressions. Their attempts in the lyric style were limited to spiritual songs; in the epic, to rhymed versions of the scriptural narratives. They were also fond of the didactic style. The rules by which the members of the societies were to be guided, as to the metre, &c., of their compositions, were written on a table, and called *Tabulatur*, for the sake of enforcing a strict observance of purity in language and prosody: the chief faults to be avoided were collected; they were 32 in number, and distinguished by particular names. He who invented a new metre, invented also a new tune; the names of which were the drollest, and sometimes the most senseless imaginable. Besides their stated meetings, they held public meetings, generally on Sundays, and festivals in the afternoon, in churches. In Nuremberg, where the master-singers flourished particularly, such meetings were opened with free-singing, in which any body might sing, though not belonging to the corporation. In this, the choice of the subjects was left comparatively uncontrolled; then followed the chief singing, when only those who belonged to the corporation were allowed to sing, and only on Scriptural subjects. The judges were called *Merker*, and sat behind a curtain. There were four: one watched whether the song was according to the text of the Bible, which lay open before him; the second, whether the prosody was correct;

the third criticised the rhymes; the fourth, the tunes. Every fault was marked, and he who had fewest received the prize—a chain with medals. Whoever had won a chain was allowed to take apprentices, to have many of whom was a great honor. Money was never taken from apprentices. After the expiration of his poetical apprenticeship, the young poet was admitted to the corporation, and declared a master, after having sung, for some time, with acceptation. These strange societies originated towards the end of the fourteenth century at Mentz, Strasburg, Augsburg, and lasted, in several free cities of the empire, until the seventeenth, in Nuremberg to the eighteenth century, where, probably, the renown of Hans Sachs (q. v.), the famous shoe-maker and poet, kept them longer in existence. Some of the most famous master-singers were Henry of Meissen, called *Frauenlob* (that is, *woman-praise*), doctor of theology at Mentz; master Regenbogen (Rainbow), a smith; master Hadlaub and Muscablut.

Mastic; a resinous substance obtained from incisions made in the branches of the *pistachia lentiscus*, a small tree, or rather shrub, growing in the Levant and other countries bordering on the Mediterranean. This tree belongs to the natural family *terebinthaceæ*. It attains the height of 15 or 20 feet; the leaves are alternate and pinnate; the flowers are small, inconspicuous, disposed in axillary racemes, and are succeeded by an ovoid drupe, containing an osseous nut. It forms one of the most important products of Scio, and has been cultivated in this and some of the neighboring islands from remote antiquity. Heat seems to exercise a great influence on the resinous product. Mastic is consumed in vast quantities throughout the Turkish empire, and is there used as a masticatory by women of all denominations, for the purpose of cleansing the teeth and imparting an agreeable odor to the breath. It was formerly in great repute as a medicine throughout Europe, but at the present time is very little used.

Mastiff (*canis*, fam. *villaticus*). This noble variety of the canine race is distinguished by a large head, dependent lips and ears, and the strength of his form. Like most of the larger kinds of dogs, although extremely vigilant over any thing committed to his charge, he is by no means savage: he will not abuse the power with which he is intrusted, nor call it into action, unless provoked by injuries. As early as the time of the Roman emperors, mastiffs were held in high estimation at Rome, for their strength and courage, especially those from Britain, where an officer was appointed, for the purpose of breeding them, and transmitting to the imperial city such as he thought capable of sustaining the combats in the amphitheatre. Manwood, in his work on the forest-laws, says this variety of the dog derives its name from the Saxon *masc thefese*, or thief-frightener. (See *Dog*.)

Mastodon; an extinct genus of the order *pachydermata*, or thick-skinned animals, often, but improperly, confounded with the mammoth (q. v.) or fossil elephant. It is found only in a fossil state, several nearly entire skeletons having been discovered in the U. States. Single bones had been early disinterred, but it was not until 1801, that a considerable portion of two skeletons was obtained by Mr. Peale, near Newburgh, New York, and others have since been dug up in different parts of the country. There is one with the missing parts supplied in the Philadelphia museum, another at Baltimore, and another belonging to the New York lyceum. The mastodon in Philadelphia measures 18 feet in length, and 11 feet 5 inches in height. The tusks are ten feet seven inches long. It seems to have been provided with a trunk, and in its food and manner of living to have much resembled the elephant. There are no traces within the period of tradition or history of the existence of these animals as a living genus. When and how they perished, if ascertained at all, must be revealed by geological data. (See Godman's *American Natural History*, vol. 2d.)

Mastology (from μαστος, breast); that branch of zoölogy which treats of the mammiferous animals.

Mastricht, or Maestricht (*Trajectum ad Mosam*); a strong place in the kingdom of the Netherlands, on the left bank of the Meuse, capital of the province of Limburg; 15 miles north of Liege, and 46 east of Brussels; lon. 5° 41′ E.; lat. 50° 51′ N.; population, 18,410. It is one of the most ancient towns of the Netherlands, and belonged formerly to the duchy of Lorrain. It contains ten Catholic and Protestant churches, and several literary and charitable institutions. It is tolerably well built, surrounded by walls and ditches, and is one of the strongest places in the Netherlands. Near it are large stone quarries, in which are subterraneous passages of great extent, where the farmers frequently store hay, corn, and other articles. It has hitherto carried on a brisk trade through its port on the Meuse, and regular packet-boats ran to Liege and other places on the river. (For the effects of the Belgian revolution on this navigation, see *Netherlands.*) Mastricht has been rendered famous by the numerous sieges which it has sustained. In 1673 and 1748, it was taken by the French, who bombarded it without success in 1793, and again captured it in 1794.

Matador (Spanish, *one who kills*). This word is used in some games with cards. In ombre and quadrille, it signifies one of the three principal cards, which are always the two black aces, the deuce in spades and clubs, and the seven in hearts and clubs. This application is probably taken from the Spanish bull-fights (q. v.), in which the man who gives the deadly blow to the bull is called *el matador*. Others derive the name from a band of volunteers, who were established by the inhabitants of Barcelona, when they fought against Philip V, and whose duty was to punish with death those who murmured against the government.

Matanzas; a seaport on the coast of Cuba, 30 leagues from the coast of Florida, and 20 from Havana; lon. 81° 36′ W.; lat. 23° 2′ N.; population, 11,341, or, including the garrison and strangers, 14,340; 1941 free blacks, 3067 slaves. It is situated on a bay of the same name, which affords one of the largest, safest, and most convenient harbors in America, having a good castle for its defence. It has considerable commerce, exporting sugar, molasses and coffee. The situation is healthy.

Matapan Cape (anciently *Tænarum*). This cape and Malea, or cape St. Angelo, are the two most southern capes of the Morea, the former in lat. 36° 23′ 20″ N.; lon. 22° 29′ 38″ E.: the latter in lat. 36° 25′ N.; lon. 23° 12′ 8″ E.

Materia Medica. (See *Medicine.*)

Material and **Moral**; two terms used in military language, and derived from the French. The former means every thing belonging to an army except the men and horses; the latter means the spirit of the soldiery, as to cheerfulness, courage, and devotion to their cause. Thus it is said: Though the *material* of the army was in a wretched condition, yet in respect to its *moral*, it was superior to the enemy.

Materialism, in philosophy; that doctrine which considers matter or corporeal substance the primitive cause of things. He who adopts this doctrine is called a *materialist*. In respect to psychology, in particular, materialism means the doctrine that the soul is a material substance. Materialism is opposed to the doctrine of the spiritual nature of the soul, or immaterialism. Both may be either empirical or transcendental. Materialism is of the first sort, if it founds all its positions and reasonings on experience derived from the sensual world, and therefore strives to explain the internal phenomena from the external; it is transcendental, if it looks beyond experience. Materialism differs according as it considers matter merely, or matter in an organized shape, as the original existence, and in the first case sometimes adopts an ethereal matter, an invisible fluid, sometimes the light, water, &c., as the primitive substance. It also differs according to the hypotheses by which it explains the origin of things. In regard to the soul, the materialist maintains that matter produces in itself spiritual changes, or that the soul is a consequence of the whole bodily organization, by which matter is refined and ennobled into mind. Among the advocates of this doctrine we may mention Priestley. This theory, however, does not explain how matter can think, and how physical motion can produce mental changes, which we do not observe in so many organic beings; how, in particular, a notion of its own activity can originate. Numerous auxiliary hypotheses, therefore, have been devised, as that of the vibration of nerves by Hartley. In decided opposition, however, to materialism, is our consciousness of the identity and liberty of man, which would be annihilated by it, because matter is governed by the necessity of nature, and free will therefore excluded. Materialism is a very ancient view of nature, and the predominant one in the most ancient Greek philosophy, poetry and mythology, surrounded, however, by all the graces in which the poetical spirit of this imaginative people could array it.

Mathematical Geography is the application of mathematics and astronomy to the measurement of the earth. The ancients had made no inconsiderable progress in this science. This science starts from two principles: 1. that the earth is to be considered as a sphere; and, 2. that the points and circles, imagined on the heavens, correspond with points and circles on the earth. (See *Earth*, *Pole*, *Equator*, *Tropics*, *Meridians*, *Degree*, *Latitude*, &c.; see, also, *Geography.*)

Mathematics. If we call every thing, which we can represent to our mind as composed of homogeneous parts, a magnitude, mathematics, according to the common definition, is the science of determining magnitudes, i. e. of measuring or calculating. Every magnitude appears as a collection of homogeneous parts, and may be considered in this sole respect; but it also appears under a particular form or extension in space, which originates from the composition of the homogeneous parts, and to which belong the notions of situation, proportion of parts, &c. Not only all objects of the bodily world, but also time, powers, motion, light, tones, &c., may be represented and treated as mathematical magnitudes. The science of mathematics has to do only with these two properties of magnitudes, the quantity of the homogeneous parts, which gives the numerical magnitude, and the form, which gives the magnitude of extension. This is one way, and the most common, of representing the subject: there are others more philosophical, but less adapted to the limited space which can be allowed to so vast a subject, in a work like the present. In investigating these two properties of magnitudes, the peculiar strictness of the proofs of mathematics gives to its conclusions and all its processes a certainty, clearness and general application, which satisfies the mind, and elevates and enlarges the sphere of its activity.* (See *Method, Mathematical.*) According as a magnitude is considered merely in the respects abovementioned, or in connexion with other circumstances, mathematics are divided into *pure* and *applied.* Pure mathematics are again divided into *arithmetic* (q. v.), which considers the numerical quality of magnitudes, and *geometry* (q. v.), which treats of magnitudes in their relations to space. In the solution of their problems, the common mode of numerical calculation, and also *algebra* (q. v.), and *analysis* (q. v.), are employed. To the applied mathematics belong the application of arithmetic to political, commercial and similar calculations; of geometry to surveying (q. v.), levelling, &c.; of pure mathematics to the powers and effects, the gravity, the sound, &c., of the dry, liquid and aëriform bodies in a state of rest, in equilibrium or in motion, in one word, its application to the mechanic sciences, (see *Mechanics*, *Hydraulics*, *Hydrostatics*, &c.); to the rays of light in the optical sciences (see *Optics*, *Dioptrics*, *Perspective*, &c.); to the position, magnitude, motion, path, &c., of heavenly bodies in the astronomical sciences (see *Astronomy*), with which the measurement and calculation of time (see *Chronology*) and the art of making sun-dials (see *Dial*) are closely connected. The name of applied mathematics has sometimes been so extended as to embrace the application of the science to architecture, navigation, the military art, geography, natural philosophy, &c.; but in these connexions it may more conveniently be considered as forming a part of the respective sciences and arts. It is to be regretted that there is as yet no perfectly satisfactory work, treating of the history of this science, so noble in itself, and so vast in its application: even Kästner and Montucla leave much to be desired. The establishment of mathematics on a scientific basis probably took place among the Indians and Egyptians. The first developement of the science we find among the Greeks, those great teachers of Europe in almost all branches. Thales, and more particularly Pythagoras, Plato, Eudoxus, investigated mathematics with a scientific spirit, and extended its domain. It appears that geometry, in those ages, was more thoroughly cultivated than arithmetic. The ancients, indeed, under stood by the latter something different from that which we understand by it. In fact, we have not a clear idea of the ancient arithmetic. Their numerical calculation was limited and awkward, sufficient ground for which might be found in their imperfect way of writing numbers, if there was no other reason. Euclid's famous Elements, a work of unrivalled excellence, considering the time of its origin, the ingenious discoveries of Archimedes, the deep investigations of Apollonius of Perga, carried the geometry of the ancients to a height which has been the admiration of all subsequent times. Since then it has been made to bear more on astronomy, and has become more connected with arithmetic. Among the Greek mathematicians are still mentioned Eratosthenes, Conon, Nicomedes, Hipparchus, Nicomachus, Ptolemy, Diophantus, Theon, Proclus, Eutocius, Papus and others. It is remarkable that the Romans showed little disposition for mathematics; but the Arabians, who learned mathematics, like almost all their science, from the Greeks, occupied themselves much with it. Algebra (q. v.) and trigonometry owe them important improvements. Through the Arabians, mathematics found entrance into Spain, where, under Alphonso of Castile, a lively zeal was displayed for the cultivation of this science. After this, it found a fertile soil in Italy; and in the convents a monk would sometimes follow out its paths, without, however, adding to its territory. This was reserved for later ages. Mathematics owes much to Gmünden, Peuerbach, Regiomontanus, Pacciolo, Tartaglia, Cardanus, Macrolycus, Vieta, Ludolphus de Ceulen, Peter Nuñez, Justus Byrge, and others. To this period, however, all mathematical operations of any extent required a weary length of detail; when, in the seventeenth century, Napier, by the introduction of logarithms, immensely facilitated the process of calculation; and Newton and Leibnitz, by their infinitesimal calculus, opened the way into regions, into which, before them, no mathematician attempted to penetrate. From this time, the science obtained a wonderful extension and influence, by the labors of such minds as Galilei, Torricelli, Pascal, Descartes, L'Hopital, Cassini, Huyghens, Harriot, Wallis, Barrow, Halley, James and John Bernouilli, and others. Thus it became possible for Manfredi, Nicoli, Nic. and Dan. Bernouilli, Euler, Maclaurin, Taylor, Bradley, Clairaut, D'Alembert, Lambert, Tobias Mayer, Kästner, Hindenburg (the inventor of the combinatory analysis), Lagrange, Laplace, Legendre, Gauss, Bessel, and the later mathematicians in the eighteenth, and in our century, to make great advances, and to give us satisfactory conclusions, not only respecting our earth, but also the heavenly bodies, the phenomena and powers of nature, and their useful application to the wants of life, to establish firmly so many notions, previously vague, and to correct so many errors. (See the articles on these mathematicians, and the works mentioned in the articles on the various branches of mathematics.) The number of mathematical manuals increases daily, without, however, much surpassing the best of the earlier ones in perspicuity, novelty and method, or rendering them unnecessary to the thorough student.

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* As a branch of intellectual culture, mathematics has great excellences and great defects. Its certainty,—the precision of its signs never conveying more nor less than the meaning intended,—its completeness in itself, and independence of all other branches, distinguish it from every other science, and nothing accustoms the young mind more to precision and exactness of thought and expression than the study of mathematics. But, on the other hand, these very excellences render it liable to give a partial direction to the mind, to withdraw it from, and unfit it for pursuits of a different character. Hence so many great mathematicians have appeared to be wholly unfitted for other studies. On the whole, however, its advantages are so great that it can never be dispensed with in a liberal education. Nothing expands and elevates the mind more than the acquisition of a mathematical truth, a law which is obeyed throughout the universe. The study of the conic sections, as has been already observed (see *Cone*), affords a fine illustration of this influence. And there are few instances in which there will be much danger of the pupil being unduly absorbed in the study.

Mather, Increase, D. D., one of the early presidents of Harvard college, was born at Dorchester, Massachusetts, June 21, 1639, and graduated at Harvard, in 1656. He was ordained a minister of the gospel in 1661; but had preached before with great success at the North church in Boston. In June, 1685, he was called to preside over Harvard college, which he continued to do until 1701. His learning, zeal and general abilities were of great utility to the institution. He distinguished himself also as a very skilful and efficient political servant of the commonwealth. When king Charles II signified his wish that the charter of Massachusetts should be resigned into his hands, in 1683, doctor Mather contended against a compliance. In 1688, he was deputed to England, as agent of the province, to procure redress of grievances. He held conferences with king James on the situation of the province, and, when William and Mary ascended the throne, urged his suit with them in audiences and by memorials. In 1692, he returned to Boston, with a new charter from the crown, which some of his old friends condemned; but the general court accepted it, with public thanks to the reverend agent, for the industry and ability with which he conducted his negotiations for settling the government of the province. He died at Boston, August 23, 1723, in the 85th year of his age, having been a preacher 66 years. He is said to have commonly spent 16 hours a day in his study, and his sermons and other publications were proportionably numerous. During the witchcraft delusion, which he labored to mitigate, he wrote a book to prove that the devil might appear in the shape of an innocent man, "by means of which a number of persons, convicted of witchcraft, escaped the execution of the sentence of death." By some of the biographers, he is styled the father of the New England clergy. An octavo volume entitled Remarkables of the Life of Doctor Increase Mather, contains a c talogue of 85 of his publications, not including "the learned and useful *prefaces*, which the publishers of many books obtained from him, as a beautiful porch unto them, and which, collected, would make a considerable volume."

Mather, Cotton, D. D., the eldest son of Increase, rivalled or surpassed his father in learning, influence, and the variety and multitude of his productions.

It is recorded in his diary, that, in one year, he preached 72 sermons, kept 60 fasts and 20 vigils, and wrote 14 books. His publications amount to 382, some of them being of huge dimensions. His reading was prodigious; his research exceedingly diversified and curious. He was born in Boston, Feb. 12, 1663, and graduated at Harvard college in 1678. In 1684, he was ordained minister of the North church in Boston, as colleague of his father. He died in 1728, aged 65 years, with the reputation of having been the greatest scholar and author that America had then produced. His piety and benevolence were almost commensurate with his learning. Credulity, pedantry, quaintness, eccentricity, are blended, in most of his works, with marvellous erudition, and instructive details of history and opinion. He was a fellow of the royal society of London. His largest and most celebrated work is his *Magnalia Christi Americana*, or the Ecclesiastical History of New England, from 1625 to 1698, in seven books, folio. His Life is extant in an octavo volume, written by his son and successor, Samuel Mather, D. D., also a learned divine and author.

Mathias, Thomas James, a distinguished scholar, was educated at Eton, and at Trinity college, Cambridge, where he took the degree of B. A. in 1774, and, in 1775 and 1776, gained some academical prizes. His first publication was Odes, chiefly from the Norse tongue (4to., 1781). This was followed by a pamphlet on the Evidence relating to Rowley's Poems (1783). For several years after the publication of the last of these works, he did not again come forward as an author. He was elected fellow of his college, but, after taking the degree of M. A., was called away from his fellowship, to be clerk to the treasurer of the queen. In time, he rose to be vice-treasurer—a place he held for many years—and afterwards, on the queen's death, he had a pension assigned him. In 1794 came out, anonymously, the first part of the Pursuits of Literature, attributed to Mr. Mathias. The poetry does not often rise above mediocrity: the notes, however, prove great learning, with keen criticisms on public men and opinions. Three more parts were subsequently published, and a volume was added containing translations of the notes. Some of the persons assailed were so highly indignant, that it would scarcely have been safe for any man at that time to have avowed himself the author. In 1794, Mr. Mathias gave to the press the Imperial Epistle from Kien Long to George III, and, in the following year, the Political Dramatist of the House of Commons—a satire on Mr. Sheridan. In 1796, appeared his Letter to the Marquis of Buckingham; in 1797, a Pair of Epistles to Doctor Randolph and the Earl of Jersey, occasioned by the loss of some letters which the princess of Wales had addressed to her mother, and, in 1798, the Shade of Alexander Pope on the Banks of the Thames—a satirical poem, with notes. These works were all published without his name. Mr. Mathias then turned to literary pursuits of a nature less calculated to excite enmity. He has made excellent Italian versions of the Lycidas of Milton, and the Sappho of Mason, and has published, in a uniform and elegant manner, the following valuable works:—*Componimenti Lyrici di più illustri Poeti d'Italia* (3 vols.); *Aggiunta ai Componimenti* (3 vols.); *Commentarj intorno all' Istoria della Poesia Italiana, par Crescembini* (3 vols.); *Tiraboschi Storia della Poesia Italiana* (3 vols.); *Canzoni e Prosa Toscane* (1 vol.); *Canzoni Toscani* (1 vol.); and *Della Ragion Poetica di Gravina* (1 vol.). He has also edited (in 2 vols., 4to.) the Works of Thomas Gray, with his Life and Additions, published at the expense of the university of Cambridge.

Matilda, marchioness of Tuscany, famous for her connexion with Gregory VII, was a daughter of Boniface, marquis of Tuscany. She was born in 1046, and married Godfrey the Hump-backed, son of the duke of Lorraine, but always lived separate from him, being unable to exchange the mild climate of Italy for a northern sky. Being left a widow in her thirtieth year, she engaged devotedly on the side of Gregory VII and Urban II, against the emperor Henry IV, her cousin. She was almost the inseparable companion of Gregory, always ready to assist him in every thing that he needed. This close connexion gave rise to many unfavorable suggestions, which were, however, groundless, although it is certain that their friendship was founded not only on policy, but also on mutual inclination and esteem. Matilda had been accustomed by her mother, to see in the pope a saint, while, at the same time, she reverenced the saint as a father. Gregory had, therefore, found much opportunity to influence the formation of her character. Her mind, moreover, was susceptible of a very high tension, and had been disciplined to manly firmness. There are, therefore, grounds enough for explaining how she should be able to dare and do so much for Gregory. The donation of all her goods and possessions to the Roman church (in 1077 or 1079, for the original records are lost), was, probably, but the least sacrifice. The sharing with him every danger that she could not avert, and her exhortations to him to encounter that which was unavoidable with steadfastness and courage, show her energy and resignation. She alone stood by him against the emperor in 1081, sustaining him with her treasures, while Rome was besieged; and, even after the death of Gregory, she prosecuted open war against the emperor. She died at Polirone, in 1115, in the Benedictine convent built by herself. Her death gave rise to new feuds between the emperor and pope, Pascal III, on account of the donation above-mentioned. These feuds, finally, resulted in the cession to the pope of a portion of the estates of Matilda. They consisted of Tuscany, Mantua, Parma, Reggio, Piacenza, Ferrara, Modena, a part of Umbria, the duchy of Spoleto, Verona, and almost all that constitutes the present patrimony of the church, from Viterbo to Oviedo, together with a part of the Mark of Ancona. (See *Popes*, and *Gregory VII.*)

Matsys, Quintin; a painter, who was originally a blacksmith, born at Antwerp, in 1460. Different accounts are given of the occasion of his quitting the forge for the pencil; but most of his biographers agree that it was in consequence of becoming enamoured of the daughter of a painter, whose hand was to be obtained only by a master of the same profession. He chiefly painted portraits and half figures in common life, but sometimes undertook great works, of which a descent from the cross, in the cathedral of Antwerp, is a favorable specimen. His picture of the two misers, at Windsor, is also much admired. He died in 1529.

Matter; that which occupies space, or that which the human mind considers as the substratum of bodies occupying space. As matter is perceived by us only in as far as it affects us, we must consider it as something effective in space, which, by its extension and motion, operates according to laws. From early times, the most various notions have been maintained of the essence of matter and the mode of its operation on the mind. In the most ancient times, powers, not unlike the soul, were conceived to exist in matter, by means of which it operated on mind. Leucippus and Democritus considered the universe as consisting of empty space and atoms, and explained all living nature by the influence of external powers. In later times, Descartes made a total difference between the material and the simple, or intellectual, and conceived extension to be the only essential property of matter. According to him, matter is not simple, but composed of parts, which, in reality, are indivisible atoms, but, in idea, are still divisible, and have still extension. Newton, who did not enter into metaphysical investigations on the subject, only states that he considers matter as an aggregate of the smallest parts, which again are material and extended, and, by an unknown power, are strongly connected with each other; whence it follows, that he also belongs to the atomists. The dualism of Descartes (q. v.) involved the metaphysicians, on account of the union of the spiritual with the material, in great difficulties, and thus caused different metaphysical systems. One of the most remarkable is the *ideal theory* (q. v.), which absolutely denies the existence of matter, and declares all our notions of material things to be but ideas or images, which the Deity implants in the soul of man; whereupon, Malebranche founded the opinion, that we see all things in God, and that we are authorized to deny the existence of all things except God and the spirits in general. He considers the effect of matter on our mind as an influence of God. Spinoza and Hume went still further in the ideal theory. The former supposed a single substance, whose properties are infinite power of thought and extension, and explained all spiritual and material phenomena as states of this one power of thought and extension. Hume, who neither allows substances, nor subjects, nor any independent beings, considers all things, spiritual and material, as a series of passing phenomena. Leibnitz (q. v.), who felt how very difficult it was to explain the influence of matter on the mind by dualism, idealism, or materialism, proposed the doctrine of *monads*. (q. v.) Priestley developed further the opinion of Boscovich, that matter consists merely of physical points, which attract and repel each other, and said that matter is a mere attraction and repulsion, which has a relation to certain mathematical points in space. Notwithstanding the many systems which have existed, matter is still the great riddle of mankind. It will always be asked, If mind and matter are essentially different, how could they possibly influence each other? and, on the other hand, we cannot reason away the many phenomena which indicate such a difference. In philosophy, matter is also opposed to form. Material is that which belongs to matter, as impenetrability, motion, extension and divisibility, and is opposed to spiritual.

Matthew (called also *Levi*), an evangelist and apostle, son of Alpheus, previous to his call, was an officer of the Roman customs, and, according to tradition, a native of Nazareth. The accounts of his life are imperfect and uncertain. Tradition represents him as having suffered martyrdom in Persia. His Gospel has been supposed, by some critics, to have been originally written in Hebrew, for the use of converted Jews, about A. D. 60. If this is the case, we have now only a Greek translation of it, the original having been lost. His narration is not according to the chronological order of events, and in his report of the teachings of our Savior, he appears to give them not precisely as they were delivered, but to arrange and group them according to the subject. The genuineness of the two first chapters has been called in question.

Matthew of Westminster, an ancient English chronicler, was a Benedictine monk of the abbey of Westminster, who lived in the fourteenth century. He compiled a chronicle, commencing from the creation, and extending to the year 1307, which he entitled *Flores Historiarum*, whence he had the name of *Florilegus*. This work chiefly relates to English history, and is very freely transcribed from Matthew Paris. (q. v.) It was published in London, 1567, and at Frankfort, 1601.

Matthews, Charles, born June 28, 1776, at the age of fourteen was bound apprentice to his father, James Matthews, a bookseller in the Strand, who died in 1804. By reading plays, he imbibed a strong partiality for them, and his first performance was in a private play. At length, he resolved to make the stage his profession, and performed at Richmond and Canterbury. His father, from religious motives, was averse to his son's playing, and, being informed that he was at a certain town for that purpose, went there with the determination of hissing him off the stage; but, on his return, he told his friend, that, though he saw his name in large letters in the play-bills, and was resolved to check his career, yet the people so laughed at his performance, that he could not help laughing himself; and they so applauded that he was obliged to do the same. In 1803, he was engaged at the Theatre Royal, Haymarket, where he appeared in Jabal, in the Jew, and Lingo, in the Agreeable Surprise, Buskin, Old Wiggins, Sir Fretful Plagiary, and other similar characters, with so much applause that he soon came to be considered one of the best mimics that ever appeared on the stage, and, in 1804, was engaged at Drury-lane. When that house was burnt down, in 1809, the company performed at the Lyceum theatre, and Matthews took the parts in which Bannister had hitherto appeared. His success in Somno, in the Sleep-walker, at the Haymarket theatre, ensured him an engagement at Covent-garden theatre, where, however, he remained only three seasons. In 1817, he played his celebrated character of Multiple, in the Actor of all Work, thirty nights, to full houses, in the London, and afterwards, with equal success, in the provincial theatres. His visit to the U. States, in 1822, was not only highly successful in shaking the sides of brother Jonathan, but furnished him with new materials for fun and frolic, at the expense of brother Jonathan himself, on his return to the other side of the water. Old women, Frenchmen, John Bulls, clowns, cockneys, braggarts, whatever is odd, droll, queer, peculiar in manners, characters or situations, supplies him with means of amusement. Mr. Matthews is not less agreeable in private life than entertaining on the stage, and is well known as an amateur of the fine arts.

Matthiæ, Augustus Henry, a celebrated German philologist, born at Göttingen, Dec. 25, 1769, was educated at the gymnasium and university of his native place, and, becoming a member of the philological seminary, devoted himself particularly to the study of the ancient classics, and the Kantian philosophy, at the same time making himself acquainted with the French, Italian and English languages. In 1789, he went to Amsterdam, as tutor in a family there, and enjoyed the advantage of the instructions of Wyttenbach, De Bosch, and Huschke in his philological studies, and of Van Hement and Hulshoff in philosophy, while the study of history, and English, French and Italian literature, occupied his leisure moments. His Essay on National Character gained the prize at Leyden, in 1795; but he was desirous of returning to his native country, and, in 1798, went to Weimar, as teacher of the Latin, Greek and Dutch languages, at an institution for the education of young Englishmen. In 1801, he received the place of principal of the gymnasium, at

Altenburg, and, the same year, obtained the degree of doctor of philosophy, from the philosophical faculty at Göttingen. His principal works are *Observationes Criticæ in Tragicos*, &c.; *Miscellanea Philologica; Homeri Hymni et Batrachomyomachia* (1805); Complete Greek Grammar, translated into English by Blomfield, and into Italian; *Euripidis Tragœdiæ* (9 vols., 1825—29); *Ciceronis Epistolæ Selectæ* (second edition, 1825); *Lehrbuch für den ersten Unterricht in der Philosophie* (second edition, 1827); *Grundriss der Griech. und Röm. Literatur.* His elder brother, Frederic Christian, who died in 1822, was also distinguished by several philological works and editions.

Matthias Corvinus, king of Hungary, second son of the gallant Hunniades, a man of great ability, who, by his wars against the Turks, excited the interest of Europe, and, in Hungary, was esteemed the first of her kings. The enemies of his father kept him imprisoned in Bohemia, but, in 1458, at the age of sixteen years, he was called to the throne of Hungary. Several Hungarian magnates opposed the election, and invited Frederic III to accept the crown. The Turks, profiting by these dissensions, invaded and laid waste Hungary; but Corvinus, having compelled Frederic III to resign to him the crown of St. Stephen, hastened to meet the Turks, and drove them from the country. Between 1468 and 1478, he conquered Silesia, Moravia, and Lusatia; he was also victorious over the Poles, and took part of Austria, including Vienna, from Frederic III. These wars obliged him to lay heavy taxes on his subjects, and he governed arbitrarily, but must be allowed to have been a man of extraordinary powers. During the whole of his disturbed reign, he not only encouraged science, but cultivated it himself. It is much to be regretted, that the great library, which he collected at Buda, was destroyed by the Turks, twenty years after his death. At Buda, he reposed from the toils of war, and collected scholars around him. In 1488, at a diet at Buda, he established laws against duels, for the better administration of justice, &c. He died in 1490, at Vienna, when occupied with preparations for a new war against the Turks. He left only a natural son, Johannes Corvinus, who was not able to obtain the crown. The candidates for it were numerous. The Hungarians elected king Wladislaus VII of Bohemia.

Matthias, John van Harlem. (See *Anabaptists.*)

Matthisson, Frederic von, was born Jan. 23, 1761, at Hohendodeleben, near Magdeburg, shortly after the death of his father. At the university of Halle, he studied theology, which he soon, however, changed for philology, natural science and belles-lettres. He lived two years with his friend Von Bonstetten, at Nyon, on the lake of Geneva. From Switzerland he went to Lyons, as tutor in a merchant's family in that city. In 1794, he was appointed reader and travelling companion to the reigning princess of Anhalt-Dessau, and spent the years 1795—1796 at Rome and Naples, 1799 partly in the south of Tyrol, partly in the north of Italy, and 1801 and 1808 in French Switzerland. After the death of the princess of Anhalt-Dessau, he entered, 1812, the service of the king of Würtemberg, who conferred on him titles and orders. In the retinue of the family of William, duke of Würtemberg, he went to Italy, in 1819, and lived several months in Florence. As a lyric poet, Matthisson has become a favorite of the German public. He excels in expressing the feelings of love and friendship, and in the delineation of nature he is a master. His verse is likewise peculiarly distinguished for its euphony and flow of rhythm. Matthisson has also appeared before the public as a prose writer, in his *Erinnerungen* (Zurich, 1810—15, in 5 vols.). This work exhibits throughout a nobleness of sentiment. An edition of his works appeared in 6 vols. (Zurich, 1825).

Maturin, Charles; an ingenious but eccentric clergyman of the established church, curate of St. Peter's, Dublin, and author of several popular romances, many of which, especially his Family of Montorio, evince great powers of imagination, with a richness of language, but exhibit an almost equal degree of carelessness in the application of both. Besides the one just mentioned, the principal are the Milesian Chief; Fatal Revenge; Woman; Melmoth, &c. Bertram, a tragedy, performed at Drury-lane theatre, with Kean as the representative of the principal character, was the first production which, by its singular success, brought him into notice as an author. This effort is said to have produced him £1000. In a subsequent dramatic attempt (Manuel), he was not so fortunate, and, having anticipated his resources, without contemplating the possibility of a failure, he contracted embarrassments, from which he was seldom entirely free till his death, in October, 1825. He published, in 1821, a poem, in blank verse, entitled the Universe, which brought him more profit than reputation; and, in 1824, appeared six of his Controversial Sermons, preached at St. Peter's, during the Lent of that year. These exhibit him as a well-read scholar, and an acute reasoner, and are, perhaps, the best foundation on which to rest his claims to the notice of posterity. He was remarkably felicitous in their delivery, and attracted, by his eloquence, unprecedented congregations.

Maubeuge; a French fortress, on the Sambre, department Du Nord. The Sambre traverses Maubeuge, and becomes navigable here, seven leagues and a half east-south-east of Valenciennes. Maubeuge has considerable commerce in wines, spirits, &c.; manufactures,—arms, nails, soap, &c.; and contains 6044 inhabitants. It dates its origin from the foundation of a chapter of canonesses, in 618, by St. Aldegonde. It was the capital of the former province of Hainault. Louis XIV took it, in 1649, and the peace of Nimeguen, in 1678, confirmed it to France. The Prussians took it in 1815.

Maubeuze. (See *Mabuse.*)

Maubreuil, marquis de. Connected with the history of this personage, there are some curious circumstances, which have not yet been explained, but which seem to reflect no great credit on the partisans of what is denominated, in politics, the principle of legitimacy. He was born in Brittany, of a noble family, about the year 1780, entered into the imperial army, in which he made several campaigns, and was subsequently taken into the service of the king of Westphalia, who appointed him his equerry. Maubreuil was employed in Spain, as a captain of Westphalian light-horse, and his bravery gained for him the cross of the legion of honor. He, however, quitted the army to become a contractor; but the ministry having broken some of the contracts entered into with him, he fell into embarrassments, and his property was seized by his creditors. His enemies say that, in 1814, he exulted beyond measure at the downfall of the imperial government, and rode through the streets, pointing out to the passengers the star of the legion of honor, which he had tied to his horse's tail. If this be true, it was probably the cause of his being employed, in conjunction with a M. Dasies, on a very extraordinary mission, by the provisional government. The ostensible purpose of this mission, for which he was authorized to call in the assistance of the armed force and the civil authorities, was to recover the crown jewels, which were said to have been carried away by the family of Napoleon. The marquis and his companion took the route of Fontainebleau, from which place the emperor had just set out for Elba; and they stopped the ex-queen of Westphalia, the wife of Jerome Bonaparte, who was travelling to Germany, with a passport from the allies. They seized eleven chests, containing valuables belonging to the princess, and sent a part of them to Versailles, and a part of them to the king's commissioner at Paris. The chests were claimed by the princess; and, on their being opened, a large quantity of diamonds, and a sum of 82,000 francs, were found to have been stolen from them. Maubreuil and Dasies were accused of the theft. Dasies was afterwards tried and acquitted, but Maubreuil was not allowed to escape so easily. One of the tribunals declared itself incompetent to try him, and he remained in prison till the 18th of March, two days before the arrival of Napoleon at Paris, when the minister at war set him at liberty. A few days after this, he was arrested by the imperial government, but was soon discharged. He is said to have gone, under an assumed name, to Brussels, and there he was arrested and conducted to Ghent, on suspicion of intending to assassinate Louis XVIII. It does not appear that an iota of proof existed against him. Driven to despair, perhaps, by the persecution which he endured, he opened his veins in prison, but was saved from death. He was next put into the custody of a party of gendarmes, and conducted to Aix-la-Chapelle, to be delivered to the Prussians. He escaped on the road; and it is a singular fact, that he went back to Paris at the same time that Louis arrived from Ghent, and remained unmolested in the French capital for nearly twelve months. In June, 1816, however, the police seized him, on a charge of his having intrigued against the royal government, and formed the project of carrying off the French princes from St. Cloud. This accusation, too, seems to have been calumnious, for it was dropped; but, in April, 1817, he was once more prosecuted for the theft of the money and diamonds. One of the subordinate courts having again refused to take cognizance of the cause, he was sent before the royal court. His patience was at length exhausted: he addressed the judges in strong terms, and disclosed the important secret, that he had not been employed to recover the crown jewels, but to assassinate Napoleon,—a mission which he accepted, he told them, only for the purpose of saving the emperor. From his prison he repeated this avowal, in a very severe letter to the ambassadors of the allied powers. The cause was now referred to the tribunal of Rouen, and from thence to that of Douay. The latter tribunal is said to have been on the point of pronouncing sentence, when Maubreuil escaped from his dungeon for the fourth time. After he had made his escape, the tribunal sentenced him to five years' imprisonment, and a fine of 500 francs. He first went to Brussels, and then passed over to England, where he published a vindication of himself. In 1825, he returned to France, and was again imprisoned until 1827, when, having been released, he made an attack on Talleyrand, whom he beat severely. On his trial for this offence, he accused the prince of having been the cause of all his sufferings, by employing him to assassinate Napoleon. Maubreuil was condemned to five years' imprisonment. Talleyrand has never thought proper to clear up the mystery, and the matter still remains unexplained. Bourrienne, in his memoirs of Napoleon, has some remarks relating to the circumstance of this transaction.

Maumee, or Miami of the Lakes; a river that rises in the north-east part of Indiana, and flows through the north-west part of Ohio, into lake Erie. It is formed by the confluence of St. Joseph's, St. Mary's, and Great and Little Auglaize. It is navigable only eighteen miles, on account of rapids. For this distance, its breadth is from 150 to 200 yards.

Maunday-Thursday is the Thursday in the Passion week; called *Maunday*, or *Mandate* Thursday, from the command which our Savior gave his apostles to commemorate him in the Lord's supper, which he this day instituted; or from the new commandment that he gave them, to love one another, after he had washed their feet, in token of his love to them. It was instituted by pope Leo, in 692.

Maupertuis, Pierre Louis Moreau de, a celebrated French mathematician and philosopher, was born at St. Malo, in 1698, and studied at the college of La Marche, in Paris, where he discovered a strong predilection for the mathematics. At the age of twenty, he entered the army, in which he served four years. In 1723, he was received into the academy of sciences, and, soon after, visited England and Switzerland, where he became a pupil and admirer of Newton, and formed a lasting friendship with the celebrated John Bernouilli (q. v.) and his family. On his return to Paris, he applied himself to his favorite studies, with greater ardor than ever, and, in 1736, formed one of the scientific party appointed to measure a degree of the meridian at the polar circle. In 1740, he received an invitation from the king of Prussia to settle at Berlin. On his return to Paris, in 1742, he was chosen director of the academy of sciences, and, the following year, received into the French academy. He returned to Berlin in 1744, and, in 1746, was declared president of the academy of sciences at Berlin, and, soon after, received the order of merit. His unhappy restlessness of temper was a source of continued disquiet to him, and a controversy with König, which subjected him to the satire of Voltaire, completed his uneasiness. At this time, his health, injured by his northern expedition, and incessant application, began to give way, and he sought relief by repeated visits to his native country. His disorder, however, seems to have uniformly revived with his return to Berlin; and he at length died, on his return from one of these excursions, at the house of his friend Bernouilli, at Basil, in 1759, in the sixty-first year of his age. His works, collected in four 8vo. volumes, were published at Lyons in 1756, and reprinted in 1768. Among them are Discourse on the different Figures of the Stars; Reflections on the Origin of Languages; Animal Physics; System of Nature; On the Progress of the Sciences; Elements of Geography; Expedition to the Polar Circle; On the Comet of 1742; Dissertation upon Languages; Academical Discourses; Upon the Laws of Motion; Upon the Laws of Rest; Operations for determining the Figure of the Earth, &c.

Maura, Santa. (See *Leucadia.*)

Maurepas, Jean Frédéric Phelippeaux, count de, born in 1701, was, at the early age of twenty-four years, minister of the French marine. At his suggestion, cardinal Fleury (q. v.) named Amelot minister of foreign affairs, and the latter undertook nothing important without the concurrence of Maurepas, who finally administered the foreign department himself. He was hasty in his decisions, without system or foresight, but quick in conception, amiable, flexible, artful and penetrating. He made up in dexterity what was wanting in reflection, and was one of the most agreeable of ministers. An epigram on madame de Pompadour, of which he was accused of being the author, led to his banishment from the court. Louis XVI recalled him in 1774, and placed him at the head of his ministry. Removed from public affairs for the space of thirty years, Maurepas had lost whatever requisite he had ever possessed for the administration of government. With the imprudence of his youth was now united the feebleness of age. He retained the confidence of the king till his death, Nov. 21, 1781; but he was destitute of the vigor necessary to avert the troubles which soon after shook the kingdom. France was, however, indebted to him for some improvements in the marine. The Memoirs of Maurepas, composed by Sallé, his secretary, and edited by Soulavie, are amusing, but carelessly written. Vergennes (q. v.) succeeded him in the ministry. (See *Louis XVI.*)

Mauri, and **Mauritania.** (See *Moors.*)

Maurice; count of Saxony, commonly known as marshal Saxe. (See *Saxe.*)

Maurice, duke, and, after 1548, elector of Saxony (of the Albertine line), born in 1521, displayed, from his early years, great talents, united with a restless, active and ardent spirit. In 1541, the death of his father, Henry the Pious, placed him at the head of the government, at the moment when the religious disputes had divided the German princes. Although a favorer of Protestantism, he refused to join the Smalcaldic league of Protestant princes, for the defence of the new doctrines, either out of attachment to Ferdinand, king of Hungary and Bohemia, against whose brother Charles V (q. v.) the league was organized, or because he foresaw that it could not stand. In 1546, he concluded a secret treaty with the emperor, and was obliged to execute the ban of the empire against John Frederic, elector of Saxony (of the Ernestine line), and take possession of his territories. In 1548, the emperor conferred on him the electoral dignity of Saxony, and the greater part of the hereditary estates of the late elector. Charles now thought the moment was come to execute his project of annihilating the rights and privileges of the German princes, and rendering himself absolute master of Germany; and, although he artfully maintained a show of protecting the Catholics, labored only for his own selfish interests. Maurice was not slow to penetrate the crafty policy of the ambitious monarch. Convinced that a forcible resistance would become necessary, he made his preparations, in 1550, under the pretence of executing the decree of the diet against Magdeburg, concluded a secret treaty with Henry II of France, and some of the German princes (1551), and conducted so warily, that he had nearly succeeded in making Charles, who lay sick with the gout at Inspruck, his prisoner (1552). In justification of this unexpected act of hostility, Maurice alleged the detention of his father-in-law by the emperor, contrary to solemn promises. The emperor, upon this, set free the princes whom he held captive, and proposed terms of accommodation by his brother Ferdinand. The result of this negotiation was the famous treaty of Passau (q. v.), July 31, 1552. Maurice, who had thus recovered the favor of the Protestants, now thought proper to give the emperor, likewise, a proof of his attachment, by serving against the Turks. Nothing, however, was effected, and he soon after returned to Saxony. July 9, 1553, he defeated Albert, margrave of Brandenburg-Kulmbach, who refused to accede to the treaty of Passau, at Sievershausen, and died of a wound received in that battle, two days after. Maurice possessed the talents of a great prince and general, with a prudence that enabled him to take advantage of circumstances. Notwithstanding the shortness of his reign, Saxony is indebted to him for many useful institutions.

Maurice of Nassau, prince of Orange, the youngest son, by a second marriage, of William I, prince of Orange, born at Dillenburg, 1567, was studying at Leyden, in 1584, when his father was assassinated. The provinces of Holland and Zealand, and, soon after, Utrecht, immediately elected the young prince stadtholder, and his talents, as a general, surpassed all expectations. In 1590, he took Breda by surprise and delivered Guelderland, Overyssel, Friesland and Gröningen from the Spaniards. With the chief command, by land and sea, of all the forces of the United Provinces, he also received the stadtholdership of Guelderland and Overyssel, that of Friesland and Gröningen being conferred on his cousin William, count of Nassau. Previous to the truce of twelve years, concluded in 1609, about forty towns, and several fortresses, had fallen into his hands. He defeated the Spaniards in three pitched battles, besides the naval victories which were gained by the vice-admirals of the republic, on the coasts of Spain and Flanders. Thus become the object of general affection and respect to his countrymen, his ambitious spirit now aimed at the sovereignty. To effect his purposes, he took advantage of the religious quarrels of the Arminians and Gomarists, or the Remonstrants and Counter-Remonstrants. (See *Arminians.*) He supported the Gomarists, even to acts of violence (see *Barneveldt*), but, notwithstanding all his efforts, he was compelled to abandon his project. He died at the Hague, April 23, 1625, and was succeeded by his brother Frederic Henry. The life of this stadtholder was an almost unbroken series of battles, sieges, and victories. War he understood as a master, and conducted like a hero. His army was considered as the best school of the military art. The generals educated under him have contributed to extend his fame. Like Montecuculi, he possessed the rare art of conducting a march and pitching a camp; like Vauban, the genius of fortification and defence; like Eugene, the skill to support the most numerous armies in the most unproductive and exhausted country; like Vendôme, the good fortune to obtain more from the soldiers than he had a right to expect; like Condé, that unerring *coup d'œil* which determines the issue of the battle; like Charles XII, the power of rendering the troops insensible to cold, hunger, and sufferings; like Turenne, that of sparing human life. In the opinion of Folard, Maurice was the greatest infantry general that had existed since the time of the Romans. He had learned the art of war from the ancients, and extended it by the results of his own and others' experience.

Mauritius. (See *France, Isle of.*)

Maurokordatos. (See *Mavrocordato.*)

Mauromichalis. (See *Mavromichali.*)

Maurus, Rabanus, a German scholar, of the age of Charlemagne, who did much to promote the improvement of his nation, was a native of Mayence, received his education in the Benedictine monastery at Fulda, and subsequently went to Tours, to complete his studies under Alcuin. After his return, in 804, he became superintendent of the monastic school at Fulda, from which proceeded many distinguished scholars. After many adversities, which the diffusers of light, in the dark ages, always had to encounter, he was consecrated, in 822, abbot of Fulda, and, during the twenty years that he held this office, the beneficial influence of his literary school, and of his truly Christian church-discipline, continued to increase. Dissatisfied with the turbulence of the times, he was desirous of finishing his life as a hermit; but king Louis the German obliged him, in 847, to accept the archbishopric of Mayence. In this dignity he died in 856. His Latin writings, mainly of a theological character, appeared at Cologne in 1627, in folio. In the diffusion and formation of the German language he was very active, and so far succeeded as to introduce preaching in German. He also compiled a Latin and German glossary of the Bible, preserved in several manuscripts,—a valuable monument of the old German language, which has been printed in Schilter's *Thesaurus*, and in Eckardt's *Commentarii de Reb. Franc.*

Maury, Jean Siffrein, born at Vauréas, in Provence, in 1746, of obscure parentage, took holy orders, and soon received several benefices. His eulogy on Fénélon, and his talents as a preacher, attracted the public notice, and, previous to the breaking out of the revolution, had procured for him the place of a court-preacher, the priory of Lyons, the dignity of abbot of Frénade, and a seat in the French academy. He showed his gratitude for this patronage of government, by exercising his courage and his eloquence in defence of the throne. In 1789, the abbé Maury was chosen deputy of the clergy of Peronne to the States-General, and became a formidable antagonist to the opposition by his eloquence, his extensive and profound knowledge, and, particularly, by his presence of mind, and his imperturbable firmness. The union of the three estates in a national assembly met with the most vigorous resistance from him, and, after it was determined upon, he quitted the assembly and Versailles, but afterwards returned, and took an active part in that body. He defended the necessity of the royal *veto*, and opposed the conversion of the church property into national domains. When the latter subject was discussed for the third time, Nov. 9, 1789, Maury produced a violent excitement in the assembly by his speech, and, on leaving the house, was saluted by the crowd with the cry, *A la lanterne l'abbé Maury. Eh bien,* replied he coolly, *le voilà, l'abbé Maury; quand vous le mettriez à la lanterne, y verriez-vous plus clair?* This reply produced a general laugh, and the abbé was saved. On the dissolution of the assembly, in 1792, he retired to Rome, and received a bishopric *in partibus* from the pope, who sent him to Frankfort as apostolic nuncio at the coronation of Francis II. He was soon after (1794) created bishop of Montefiascone and Corneto, and cardinal. During the revolutionary storm, Maury remained at Rome, devoted to the duties of his charge and to study. His pastoral letters contained expressions of his abhorrence of the cruelties committed in France, and of his adherence to the Bourbons. Thus far he had displayed a consistency of character, as even his declared enemies acknowledged. But when Napoleon usurped the imperial dignity, in 1804, Maury considered the cause of the Bourbons as hopeless, and thought it an act of prudence on his part to submit to the government, which was recognised by the French nation, and by nearly all the powers of Europe. He might justify this measure by his previous adherence to monarchical principles, and might hope to be useful in extending the papal prerogatives in France, which had been much limited by the concordate of 1801. Perhaps, also, his ambition was flattered with the prospect of thus reaching the highest spiritual dignity in Catholic Christendom. However this may be, he wrote in terms of the highest admiration to Napoleon, and proffered his allegiance as a French subject. In 1804, he accompanied the pope to Paris, and was present at the coronation of the emperor. In 1808, he was created archbishop of Paris, and was thenceforward the most devoted servant of his master. All his pastoral letters, and his discourses, recommended the most unconditional obedience to the decrees of Napoleon, and his addresses to the emperor abounded in the most abject terms of adulation. In 1814, he was obliged to leave the archiepiscopal palace in Paris, and the capital would no longer recognise him as archbishop, since he had no papal brief to produce. He hastened to Rome, but there was thrown into the castle of St. Angelo, for having accepted the archbishopric without the consent of the holy see. After subjecting himself to various humiliations, he was again acknowledged as cardinal, but died at Rome, in 1817, without recovering his archbishopric, or his former consideration.

Mausoleum (μαυσωλεῖον), from Mausolus, a king of Caria, to whom a sumptuous sepulchre was raised by his wife Artemisia. King Mausolus is said to have expired in the year 353 B. C.; and his wife was so disconsolate at the event, that she drank up his ashes, and perpetuated his memory by the erection of this magnificent monument, which became so famous as to be esteemed the seventh wonder of the world, and to give a generic name to all superb sepulchres. (See an essay of count Caylus, in the 26th volume of the *Mém. de l'Académie des Belles-Lettres*; and Aulisio, *De Mausolei Architectura*, in Sallengre, *Thes.* III.) Other famous mausoleums are the mausoleum of Augustus, built by him in his sixth consulate, on the Campus Martius, between the Via Flaminia and the Tiber. The ruins are still seen near the church of St. Roque, and one of the obelisks which stood before this superb building was found in the reign of pope Sixtus V, and placed before the church of St. Maria Maggiore. This mausoleum contained the ashes of Augustus, Marcellus, Agrippa, Germanicus, and of some later emperors. The *Mausoleum Hadriani* is now the castle of St. Angelo.

Mavrocordato, Alexander (called, by courtesy, *prince**), one of the ablest leaders of the Greeks, in their recent revolution, is descended from an ancient Fanariot family, which has given several interpreters and hospodars to the Porte. He was born about 1790, and early displayed proofs of a strong and penetrating mind, with an inclination for the severe studies. His acquaintance with the Eastern and European languages affords a remarkable instance of his powers of acquisition. He speaks seven languages with facility and correctness. His knowledge of Turkish history is also profound. His political education early initiated him into the artful and tortuous policy of the Fanariots, and rendered him a more skilful statesman than the rude chiefs of Greece. Mavrocordato was, for some time, chief minister to his uncle, the hospodar of Walachia, and afterwards accompanied him into Western Europe—Switzerland, Italy and France. On the breaking out of the Greek revolution, Alexander, who was in France, hastened to Marseilles, and, partly at his own expense, and partly by the contributions of his friends, loaded a vessel with arms, and sailed for Greece. His arrival at Missolonghi (1821) was hailed by his countrymen with the greatest enthusiasm. Presenting himself to Demetrius Ypsilanti, who was before Tripolizza, Mavrocordato desired to be employed in some useful way, and received a commission to direct the insurrection then beginning in Etolia. He traversed Etolia, Locris, Bœotia, and penetrated to Arta, to confer with the Suliots; he also endeavored to turn the situation of Ali Pacha (q. v.) to the advantage of the Greeks, and encouraged the Albanian chiefs in their disaffection. He next proceeded to organize an internal government for Greece, as the only means of sustaining a concert in the resistance against the Turks. Aware of the importance of Patras (q. v.), he used every effort to cause the siege of that place to be pushed with vigor, and visited the camp to animate the soldiers and unite the leaders. While he was thus engaged, the Turks sallied out and surprised the Greeks. Mavrocordato narrowly escaped, and lost his manuscript history of the invasion of Europe by the Turks—a work which his access to documents in Constantinople rendered extremely valuable. The general assembly of Greece convened at Epidaurus, in December, 1821, and chose Mavrocordato their president. A committee, consisting of the president, Theodore Negris, archbishop Germanos, Caradja and Colletti, was appointed to draft a constitution, which was reported and accepted at the beginning of the new year (1822), and Mavrocordato was elected president of the executive body. (See *Greece, Revolution of.*) The exertions of Mavrocordato to introduce order into the civil and military administration, and his conduct at Missolonghi (q. v.), are related in the article on the Greek revolution above referred to. In 1823, the military party had gained the ascendency in the national assembly, and Mavromichalis was chosen president of the executive body, to which Mavrocordato, for the sake of preserving order, accepted the place of chief secretary. On the departure of Colocotroni for the army, Mavrocordato was chosen president of the senate, on hearing of which, the former immediately hastened back, at the head of a body of troops, vowing vengeance on the senate and Mavrocordato. The latter was, in consequence, obliged to flee, and he retired to Hydra. Here he exerted himself to induce the Hydriot navarchs to despatch a fleet to the relief of Missolonghi; and having been himself invested with the command of Western Greece, he effected that purpose. In January, 1824, lord Byron arrived in Greece, and found an efficient and ready friend in Mavrocordato, in opposition to the views of Stanhope. In 1825, Mavrocordato was made secretary of foreign affairs, and soon recovered his former ascendency in the government. Conduriottis, who was then president, chose him for his military counsellor on the expedition against Ibrahim Pacha, and although the result was unfavorable, yet Mavrocordato showed himself an active and able commander. But the fall of Navarino afforded an opportunity of excluding him from the administration, and a commission to regulate the government was appointed by the national assembly. He has not since taken an active part in public affairs.

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* The hospodars of Moldavia and Walachia were usually styled *princes*, and courtesy extended the title to their sons, &c. Hence Ypsilanti, Mavrocordato and Cantacuzene are so called, but without any proper claim to the title.

Mavromichalis, Petro (often called *Petro Bey*), at the beginning of the Greek revolution, was bey or governor of Maina, the Turks having been accustomed to appoint a Greek to that post, to collect the revenues, because the inhabitants would not submit to the direct government of Mussulmans. His influence was such among the Mainots that he might have prevented them from joining the revolt, and thus have retained a lucrative situation; but on the first symptoms of resistance, he hastened to join his countrymen, and his subsequent exertions, the generous sacrifices of himself and his family, the heroic courage and death of his sons and relations, entitle him to a respect, of which even his ignorance and narrow policy in government ought not to deprive him. In 1822, he contributed essentially to the relief of Missolonghi, and, in 1826, on the change of administration, which threw out Mavrocordato and his party, Mavromichalis was a member of the commission of government then established. His son George Mavromichalis was a member of the new governing commission, which was formed in 1827, on the dissolution of the former. He had commanded at Navarino, and displayed the courage characteristic of the family at the siege of that place. Joannes, his youngest son, a brave and meritorious young man, fell at Navarino, in 1825. Another, Constantine, fell before Modon, in 1821, having too far outstripped his men in pursuit of the enemy. (See *Greece, Revolution of.*)

Maxen; a village in the circle of Meissen, kingdom of Saxony, famous for the surrender of the Prussian general Fink, with 12,000 men, to the Austrian general Daun, Nov. 21, 1759, in the seven years' war.

Maximianus, Herculius; the colleague of Diocletian. (See *Diocletian.*)

Maximilian I, emperor of Germany, son and successor of Frederic III, born in 1459, married, in 1477, Mary of Burgundy, heiress of duke Charles the Bold, the son of which marriage (the arch-duke Philip) was the father of Charles V and Ferdinand I. Maximilian was elected king of the Romans, in 1486, and ascended the imperial throne in 1493, under very unfavorable circumstances. Germany, under the reign of his predecessor, had become distracted and feeble. Maximilian's marriage had, indeed, brought the territories of Charles to the house of Austria, but he had been unable to maintain them against Louis XI (q. v.), who had stripped him of Artois, Flanders, and the duchy of Burgundy, while Charles VIII obtained the hand of Anne of Brittany, whom Maximilian had married by proxy. In 1494, the latter was married, a second time, to Bianca Sforza of Milan. Maximilian was enterprising, politic, brave, and of a noble and generous temper; yet his best plans often failed through his excessive ardor and his want of perseverance, and the miserable administration of his finances often deprived him of the fruits of his most fortunate enterprises. In 1493, he defeated the Turks, who had invaded the empire, and, during the remainder of his life, he was able to repel them from his hereditary territories; but he could not prevent the separation of Switzerland (q. v.) from the German empire, in 1498 and 1499. His plans for limiting the power of Louis XII in Italy, and compelling him to renounce his claims on Milan, involved him in perpetual wars, without securing to him the possession of Milan. Not less unsuccessful was the league of Cambray against Venice, which he concluded (1508) with the pope, Spain, France, Mantua and Modena. (See *League.*) Maximilian afterwards took the field against France, and, for the purpose of raising money, ceded Verona to the Venetian republic for 200,000 ducats. His measures in the domestic affairs of the German empire, which, for 300 years, had been the theatre of barbarism and anarchy, were more creditable. What his predecessors had so long vainly attempted, Maximilian successfully accomplished. In 1495, he had put an end to internal troubles and violence, by the perpetual peace of the empire, decreed by the diet of Worms. (See *Germany, History of.*) To supply the defects of the German laws and prevent the gross abuses of justice, he adopted, at the same diet, the Roman and canon laws, as subsidiary authorities, in the decision of differences, and instituted the imperial chamber (see *Chamber*, *Imperial*), as the supreme tribunal of the empire. He put a stop to the monstrous abuses of the Westphalian *Femgerichte*, although he was unable entirely to abolish those secret tribunals. (See *Feme.*) The institution of the German circles, which were intended to secure internal peace and safety, originated from him, as did many other useful institutions for the improvement of the government, and the promotion of science and art. Maximilian was himself a poet, and was the author of a circumstantial but romantic account of his own life, first published in 1775, under the title *Der weiss Kunig*, by M. Treitzsaurwein (his private secretary), *with Wood-cuts by Hanns Burgmair.* He was, for a long time, considered the author of the *Theuerdank* (q. v.), of which he is the hero; but his secretary Pfinzing is now known to have been the writer. Maximilian died in 1519, and was succeeded by Charles V.

MAXIMILIAN II, German emperor, son of Ferdinand I, born at Vienna (1527), was chosen king of the Romans in 1562, and succeeded his father in the imperial dignity in 1564. He was a pattern of a wise, prudent and good prince. Although he did not join the Lutherans, yet he favored some of their opinions, and granted to his subjects, in his hereditary dominions, a greater religious freedom than they had previously enjoyed. His toleration was extended to all his territories, and led him to promote the religious peace of 1566. Soliman II, the Turkish sultan, made war upon him, in support of the claims of John Sigismund, prince of Transylvania, to Hungary, but the death of the sultan put an end to the war in 1567, his successor, Selim, having agreed to a truce of eight years. The latter renewed the war in 1576, in which year Maximilian died. He left two daughters and six sons, the eldest of whom (Rodolph) succeeded him, not only as emperor, but also in the Austrian hereditary estates. (See *Austria.*)

MAXIMILIAN THE GREAT; elector of Bavaria. (See *Bavaria.*)

MAXIMILIAN I, Joseph, late king of Bavaria, was born May 27, 1756, in Schwetzingen, a village not far from Manheim. His father was the palatine Frederic, Austrian field-marshal. In 1777, Maximilian was made colonel of a French regiment in Strasburg. In 1795, his brother Charles died, and he became duke of Deuxponts. In 1799, when the Sulzbach palatine line became extinct by the death of the elector Charles Theodore, the succession passed to the line of Deuxponts. Thus Maximilian became elector. By the peace of Presburg (1805), he became king. (See *Bavaria.*) In 1818, he gave a constitution to his kingdom, after having improved it in many respects. He died Oct. 13, 1825. Maximilian, who, when young, little expected to rule over Bavaria, retained always the frankness of a soldier. He had a good heart, and was beloved by his subjects. Education, agriculture, the finances, and the administration in general, were improved under his reign. His daughter Augusta Amalia, born June 21, 1788, is the widow of the duke of Leuchtenberg (Eugene Beauharnais); his daughter Charlotte Augusta, born February 8, 1792, was married, in 1816, to Francis I, emperor of Austria. Maximilian was succeeded by his son Louis I, born August 25, 1786.

MAXIMINUS, Caius Julius Verus, the son of a peasant of Thrace, was originally a shepherd, and, by heading his countrymen against the frequent attacks of the neighboring barbarians and robbers, inured himself to the labors and to the fatigues of a camp. He entered the Roman armies, where he gradually rose to the first offices. On the death of Alexander Severus, slain in a mutiny of his troops excited by Maximin, he caused himself to be proclaimed emperor, A. D. 235, and immediately made his son his colleague. The popularity which he had gained when general of the armies, was at an end when he ascended the throne. He was delighted with acts of barbarity, and no less than 400 persons lost their lives on the false suspicion of having conspired against the emperor's life. Some were exposed to wild beasts; others expired by blows; some were nailed on crosses; while others were shut up in the bellies of animals just killed. The patricians were peculiarly the objects of his cruelty, as if they were more conscious than others of his mean origin. In an expedition in Germany, he cut down the corn, and laid waste about 450 miles, with fire and sword. Such a monster of tyranny at last provoked the people of Rome. The Gordians were proclaimed emperors; but their pacific virtues were unable to resist the fury of Maximin. After their fall, the Roman senate invested twenty of their number with the imperial dignity, and intrusted to their hands the care of the republic. These measures so highly irritated Maximin, that at the first intelligence he howled like a wild beast, and almost destroyed himself by knocking his head against the walls of his palace. When his fury was a little abated, he marched to Rome, resolved on slaughter, but his soldiers ashamed of accompanying a tyrant whose cruelty had procured him the names of *Busiris*, *Cyclops* and *Phalaris*, assassinated him in his tent before the walls of Aquileia, A. D. 238. He was then in the 65th year of his age. The news of his death was received with the greatest rejoicings at Rome; public thanksgivings were offered, and whole hecatombs flamed on the altars. Maximin has been represented by historians as of a gigantic stature: he was eight feet high, and the bracelets of his wife served as rings to adorn the fingers of his hand. His voracity was as remarkable as his corpulence: he ate 40 pounds of flesh a day, and drank 18 bottles of wine. His strength was proportionable to his gigantic shape: he could draw a loaded wagon; with a blow of his fist he often broke the teeth in a horse's mouth, and cleft young trees with his hand.

MAXIMUM (the *greatest*); in general, that magnitude above which no aggrandizement or increase exists or is allowed to exist. Thus, in the time of the French revolution, all the necessaries of life had a price set upon them, above which they were not allowed to be sold: this was called the *maximum*. This regulation was soon seen to be so prejudicial to agriculture and trade, that it was abolished. In mathematics, where an extensive application is made of the notion of greatest and smallest (*maximum* and *minimum*), by the greatest or smallest value of a variable quantity is understood that value which is greater or smaller than any preceding or following one in the series of the values of this quantity, however near either may be taken to that greatest or least value. The question of the conditions of the *maximum* and *minimum*, the determination of which belongs to the differential and in some more difficult cases to the integral calculus, (q. v.), is of the highest importance. In order to illustrate the subject by a simple case, let it be required to divide a number, 8, for instance, in such a manner that the product of the parts shall be a *maximum*; the method of *maximum* and *minimum* shows that the number must be divided into two equal parts, for 4 times 4 are 16, while 3 times 5 are only 15, twice 6 only 12, &c., so that, according to our above definition, 16 is the *maximum* in the series of numbers successively obtained. (See the treatises on the differential calculus, and Tomasini's treatise *De Maximis et Minimis ad Institutiones geometricas accommodatis Specimen*, Pisa, 1774).

MAXIMUS TYRIUS, a celebrated philosopher of the second century, was a native of Tyre in Phœnicia, whence he took his name. It is generally supposed that he flourished under Antoninus. He appears to have adopted the principles of the Platonic school, with an inclination to scepticism. He left forty-one Dissertations on various philosophical topics, still extant, and written with extreme eloquence. They were published in Greek, by Stephens, in 1557, and in Greek and Latin, by Heinsius, in 1607.

May, the fifth month in the year, has 31 days (in Latin, *Majus*, from which May has been generally derived; the names of the other months being also of Latin origin). Several etymologists maintain, however, that the German *May*, or *Mai*, is not derived from the Latin, but that *May* and *Majus* may both belong to one original root. As early as in the Salic laws, this month is called *Meo*, and it would appear that the idea of youthful beauty and loveliness, so naturally connected by northern nations with the month of May, gave rise to its name. In the Low Saxon, *Moj*, in Dutch, *Mooy*, is beautiful, agreeable; in Swedish, *Mio*, in Icelandic, *Mior*, small, pretty, agreeable; in ancient Swedish, *Mô*, a virgin (connected with *maid*, *maiden*). In Lower Brittany, *Mae* signifies green, flourishing, and *Maes*, a field, meadow; German, *Matte;* in Lorraine, *Io Mai* and *Mé*, in ancient French *Mets*, *Mès*, signify a garden. Whether all these must be referred to one Teutonic root, and whether this, again, is connected with the Indian *Maya* (see *Magic*), the goddess of nature, cannot be investigated here.

May, Cape; on the coast of New Jersey, at the mouth of the Delaware bay, on its northern coast. It is 18 miles N. E. of cape Henlopen on the southern shore. Lon. 74° 52′ W.; lat. 38° 57′ N.

May Fly. (See *Ephemerides.*)

May, Thomas, a poet and historian, the eldest son of sir Thomas May, was born about 1595. He studied at Cambridge, and was afterwards admitted a member of Gray's Inn; but never seems to have followed the law as a profession. His father having spent nearly all the family estate, he enjoyed but a scanty inheritance. May was much noticed by Charles I, and the wits of his early courts. He was the author of three tragedies and two comedies, also of several poetical translations, as Virgil's Georgics, with annotations; Lucan's Pharsalia; to the latter of which he supplied a continuation of his own, both in Latin hexameters and in English. Of his original poems, the principal are Reign of Henry II, and the Victorious Reign of Edward III, each in seven books. According to lord Clarendon, disgust at being denied a small pension, induced him, on the breaking out of the civil war, to enter into the service of parliament, to which he was appointed secretary; and his well-known History of the Parliament of England, which began November 3, 1640, became extremely obnoxious to the royal party, who vilified both the author and his production, without measure. He afterwards made an abstract of this history, under the title of a Breviary of the History of the Parliament of England (1650, 8vo.), and died a few months after its publication, aged fifty-five, 1650. He was buried in Westminster abbey, by the order of parliament, which also erected a monument to his memory. This was removed at the restoration, and his body disinterred, and thrown, with many others, into a pit, dug for that purpose, in St. Margaret's churchyard.

Mayence. (See *Mentz.*)

Mayer, John Tobias, a celebrated astronomer, born at Marbach in Wurtemberg, February 17, 1723, passed his early years in poverty at Esslingen. By his private industry, without attending any academy, he made himself a mathematician, and became known by several original essays in this department, such as *Allgemeine Methode zur Auflösung Geometr. Probleme* (Esslingen, 1741); after which, he went to Nuremberg, and entered the establishment of Homann, where he distinguished himself by his improvement of maps. At the same time, he did not neglect to improve himself in other branches of study: he acquired, for instance, an elegant Latin style, which, in his circumstances, did him much honor. These various merits procured him an invitation to Göttingen, as professor of mathematics, in 1750, and the royal society of sciences of that place chose him a member. About this time, astronomers were employed on the theory of the moon, to assist in finding the longitude at sea. Mayer overcame all difficulties, and prepared the excellent lunar tables, by which the situation of the moon may at any time be ascertained to a minute, for which tables, after his death at Göttingen, February 20, 1762, his heirs received 3000 pounds sterling, as a part of the reward proposed by the English parliament for a method of finding the longitude at sea. These tables have immortalized him. To the same department belong his *Theoria Lunæ juxta Systema Newtonianum* (London, 1767, 4to.) and *Tabulæ Motuum Solis et Lunæ* (London, 1770, 4to.) He also rendered other services to astronomy, especially by his improvement of instruments for measuring angles, and the introduction of the multiplication circle (which was afterwards made more perfect by Borda, so as to be adapted to the most delicate operations of astronomy), by the theory of refraction and eclipses, by catalogues of the fixed stars, &c. The manuscripts left by him are preserved in the observatory at Göttingen. A part only of them have appeared, *Opera inedita, ed. Lichtenberg* (Göttingen, 1774, fol.).

Mayer, or **Mayr**, Simon, a distinguished German composer, born near Ingolstadt, in 1764, resided a long time in Italy. He was liberally educated, but his inclination for music seduced him from the sciences, and, at the age of 25 years, he went to Bergamo, where count Pesenti assisted him, and enabled him to study at Venice, under the chapel-master Bertoni. The death of his patron obliged him to connect himself with the theatre, and in 1802 the place of chapel-master in Bergamo was given him. He composed a great number of serious and comic operas, oratorios, cantatas, &c. His principal operas are *Lodoiska*; *Misterj Eleusini*; *La Ginevra di Scozia*; *Medea in Corinto*; *La Rosa bianca e la Rosa rossa*; and *Adelasio ed Aleramo*.

Mayhew, Jonathan, D. D., son of a distinguished clergyman and successful missionary among the Indians, was born at Martha's Vineyard, in the year 1720, and educated at Harvard college, of which he received the honors in 1744. In youth he manifested talents, and great proficiency in his studies: he was ordained the minister of the West church in Boston, June 17, 1747. In this station he continued during the rest of his life. He died suddenly July 9, 1766, in the forty-sixth year of his age. He published a number of sermons and some controversial tracts, by which he gained as high a reputation as was possessed by any American writer or clergyman of his time. His style is nervous and chaste: he displayed on every occasion critical and extensive learning, and singular independence of spirit. Most of his writings passed through several editions in England. The university of Aberdeen sent him a diploma of doctor of divinity. He entered frequently into politics, and was termed a whig of the first magnitude, or rather a principled republican. In one of his early sermons, he held a language which is remarkable considering the time at which it was uttered. "Having (said he) been initiated, in youth, in the doctrines of civil liberty as they were taught by such men as Plato, Demosthenes, Cicero, and other renowned persons among the ancients, and such as Sydney, Milton, Locke and Hoadley among the moderns, I liked them; they seemed rational. And having learned from the Holy Scriptures that wise, brave and virtuous men were always friends to liberty—that God gave the Israelites a king in his anger, because they had not sense and virtue enough to like a free commonwealth, and that where the spirit of the Lord is, there is liberty,—this made me conclude that freedom was a great blessing," &c. The transaction in Doctor Mayhew's life which attracted most attention to him was his controversy with the reverend Mr. Apthorp, respecting the proceedings of the British society for the propagation of the gospel in foreign parts. He condemned their proceedings in a masterly pamphlet, and contended that the society were either deceived by the representations of the persons whom they employed, or governed more by a regard to Episcopacy than to charity. Several members of the society in America wrote replies, and even doctor Secker, archbishop of Canterbury, embarked in the dispute, in favor of the society. Doctor Mayhew rejoined with much cogency, vivacity and wit. He was an avowed and determined enemy to religious establishments and test acts, and wished to prevent the introduction of bishops into the colonies.

Maypu, Battle of, sealed the independence of Chile. It was fought April 5, 1817, Osorio commanding the royalists, and San Martin and Las Heras the patriots. Of the five thousand men commanded by Osorio, two thousand fell on the field, and two thousand five hundred were made prisoners; and the victory not only gave liberty to Chile, but enabled the Chileans to send a liberating expedition against Peru. (See *Chile*, *Peru*, *San Martin*.)—Stevenson's *South America*, vol. iii, p. 183.

Mazarin, Julius, first minister of Louis XIV, and cardinal, was born of a noble family, at Piscini, in Abruzzo (according to Flassan, at Rome), in 1602. He studied law at the Spanish university of Alcala de Henares, after leaving which, he entered the military service of the pope. He was a captain in a corps in the Valteline, when he was commissioned by general Torquato Conti to negotiate the truce at Rivalta, Sept. 16, 1630, between the French, Spanish and imperial generals. The nuncio Bagni represented him as a distinguished man to Louis XIII and cardinal Richelieu. When the war broke out respecting the succession of the duchy of Mantua, Mazarin, as papal minister, repaired to Louis XIII at Lyons, and had a long conference with cardinal Richelieu. Having failed in his attempts to effect a peace, he returned to Italy. The French stationed before Casal were on the point of renewing hostilities, when Mazarin effected a truce of six weeks between them and the Spanish forces. On the expiration of the truce, he proposed to the French to consent to a peace, which they refused, except on the hardest conditions. He induced the Spanish general, however, to agree to them, and returned on horseback, at full speed, between the two armies, who were already engaged, waving his hat, and exclaiming "Peace! peace!" while the bullets were whizzing round his head. The action was suspended and peace established. By this negotiation, Mazarin gained the friendship of Richelieu, and, in 1641, Louis XIII induced Urban VIII to create him cardinal, immediately whereupon he was appointed a member of the council of state. Richelieu, on his death-bed, recommended him so strongly to the king, that, in his will, Louis nominated him a member of the council of regency. After the death of Louis XIII, in 1643, queen Anne of Austria, as regent, gave him the post of first minister. Mazarin was, at that time, generally regarded as the lover of the queen, and, from this intimacy, some have attempted to derive the origin of the iron mask. (q. v.) He at first conducted with much modesty. But, notwithstanding this moderation, which did not last long, a powerful party was formed against him. He was hated as a foreigner, and his person, his manners, his pronunciation, were made subjects of ridicule. The people, moreover, groaned under the burden of taxes. These circumstances resulted in a civil war. (See *Fronde*.) The queen was obliged to fly to St. Germain with the king, and the minister, whom the parliament regarded as a disturber of the public tranquillity. Spain took part in the commotions, and the arch-duke, governor of the Netherlands, assembled troops. This obliged the queen, who was neither able nor desirous to wage war, in 1649, to come to a compromise with the parliament. The parliament retained the liberty of convening itself, of which it had been attempted to deprive it, and the court kept its minister, whom parliament and people had attempted to overthrow. But the prince of Condé, to whom the state was indebted for this reconciliation, showed little moderation to either party. Mazarin was ridiculed by him, the queen treated with disdain, and the government mocked. Mazarin, forced to be ungrateful, therefore persuaded the queen to give orders for the arrest of him, with his brother, the prince of Conti, and the duke of Longueville. But, in 1651, the parliament issued an edict, banishing Mazarin from the kingdom, and obliged the court to release the princes. They entered Paris as if in triumph, while the cardinal fled, first to Liege and then to Cologne. But even from thence did this minister rule the court and France. In February, 1652, the king, now arrived at age, recalled Mazarin, who, as Voltaire says, came to France "less like a minister resuming his office than like a ruler taking possession again of his states." He was accompanied by a small army of 7000 men, which he kept on foot, at his own expense, that is, with the public money, which he appropriated to his own use. On the first information of his return, Gaston d'Orleans, brother of Louis XIII, who had demanded the removal of the cardinal, levied troops in Paris, and the parliament renewed its decrees, banished Mazarin, and set a price on his head. At the same time, the prince of Condé, in league with the Spaniards, put himself in motion against the king, whose army was commanded by Turenne, who had left the Spaniards. Several indecisive battles were fought: the war ceased and was renewed at intervals. The cardinal found it necessary again to leave the court, and repaired to Sedan, in 1652, after which the king again took possession of Paris. To restore entire tranquillity, Louis had issued a proclamation, in which he dismissed his minister, while he praised his services, and lamented his banishment. But quiet having returned, the king invited him, in February, 1653, back to Paris. Louis received him like a father, the people like a master. The princes, the ambassadors, and the parliament, hastened to wait upon him. The disturbances in the provinces were soon entirely quelled, and Condé, who had fled to the Spanish Netherlands, was declared guilty of treason. Mazarin now prosecuted the war against Spain with redoubled zeal, and, for that end, formed an alliance, in 1656, with Cromwell. By this means, he obtained for France an honorable peace. He negotiated himself, in 1659, with the Spanish minister Haro, on the isle of Pheasants. This peace of the Pyrenees was followed by the marriage of the king with the Infanta. Both negotiations did great honor to Mazarin's policy. He was now more powerful than ever: he appeared with regal pomp, being regularly attended by a company of musketeer guards, in addition to his body-guard. The queen mother, on the contrary, lost her influence. During this time of repose, nothing was done by Mazarin for the administration of justice, for trade, naval power and finances. Neither were his eight years of unlimited dominion marked by a single honorable institution. The *collége des quatre nations* was first established by his testament. The finances he administered like the steward of an involved master. He accumulated over 200,000,000 livres, in doing which, he often made use of means unworthy of an honorable man. According to Flassan, he had an income of 1,800,000 livres, and a property of twenty-two millions, equivalent to about double the sum of the money of our time. This disquieted him, when he perceived his end approaching. Colbert therefore advised him to make the king a present of all his treasures, who would infallibly return them to him. The king accepted the present, and the cardinal had already begun to feel uneasy, when the king returned it to him, after the lapse of three days. Mazarin died March 9, 1661. He left as his heir the marquis La Meilleraie, who married his niece Hortensia Mancini, and assumed the title of duke of Mazarin. He had, besides, a nephew, the duke of Nevers, and four other nieces, who were married to the prince of Conti, the constable Colonna, the duke of Mercœur, and the duke of Bouillon. Charles II (Stuart), in the time of his embarrassments, had sued for one of them; his affairs having improved, Mazarin offered her to him, but now received a negative answer. Mazarin and Richelieu have often been compared together: "Mazarin," says Hénault, "was as mild as Richelieu was vehement. One of his greatest talents was his accurate knowledge of men. His policy was characterized rather by finesse and forbearance than by force. The last he made it a rule to use only when other means were inadequate; and his understanding gave him the courage which circumstances required. Bold at Casal, quiet and active at Cologne, enterprising, as when he accomplished the arrest of the princes, but insensible to the ridicule of his enemies and the boastings of his colleagues,—he heard the murmurs of the people as from the shore he would have heard the ragings of the billows. In Richelieu there was something greater, more comprehensive, less constrained; in Mazarin, more adroitness, more caution, and less variation. The one was hated; the other was derided; but both ruled the state." Mazarin flattered the enemies whom Richelieu would have ordered to be beheaded. His talents were not sufficiently prominent to conceal his ambition, cupidity, timidity, artfulness and meanness. His greatest merit was his skill in diplomacy. For this he possessed all the necessary finesse, pliancy, and knowledge of human nature, and exhibited them in the peace of Westphalia and that of the Pyrenees. He added Alsace to France, and perhaps anticipated that France might some day give laws to Spain. The outward appearance of the cardinal was very prepossessing: with the finest countenance, he united the most agreeable tone in conversation, which won all whom he wished to please. He allured men with hopes. His heart was cold, equally destitute of hatred and friendship. His composure was to be disturbed by no passion, and no one could elicit from him a secret. Towards private persons, he often forgot his promises, but public treaties he conscientiously observed, in order to restore the influence of France, which Richelieu had neglected. Mazarin's letters respecting the negotiations of the peace of the Pyrenees have been several times printed. (See Aubery's *Hist. du. Card. Mazarin* (Amsterdam, 1751, 4 vols.); and *Parallèle du Card. de Richelieu et du Card. Mazarin*, by Richard (Amsterdam, 1716); also Retz's *Memoirs*.)

Mazeppa, John; hettman of the Cossacks, born in Podolia, of one of the many poor noble Polish families, who were obliged to seek for employments in the houses of the more wealthy. He was page to John Casimir, who was fond of pleasure, but, at the same time, a lover of the arts and of literature. Mazeppa had therefore an opportunity of acquiring various useful accomplishments. An intrigue was the foundation of his future elevation. A Polish nobleman, having surprised Mazeppa with his wife, bound him, naked, in revenge, upon a wild horse, and committed him to his fate. The horse was from the Ukraine, and directed his course thither. Some poor peasants found him, half dead, and took care of him. He remained among them, and their warlike, roving life suited his disposition. He made himself conspicuous and beloved by his dexterity, bodily strength and courage. His knowledge and sagacity procured him the posts of secretary, and adjutant to the hettman Samoilowitz, and, in 1687, he was elected in his place. He gained the confidence of Peter the Great, who loaded him with honors, and he was finally made prince of the Ukraine. His restless spirit now made him resolve to throw off the yoke of subordination. He joined with Charles XII, who had just given a king to Poland, and aimed, by his assistance, to withdraw himself from his allegiance to the czar, and to unite the Ukraine, under certain conditions, to the crown of Poland. These and other intrigues of Mazeppa against Peter were at last revealed to the latter by Kotschubey, general of the Cossacks, and Isra, governor of Poltawa. Peter put no confidence in these charges, but sent both the accusers to Mazeppa himself for punishment. He had the audacity to cause them to be executed. At length the eyes of Peter were opened: many partisans of Mazeppa were arrested and executed, and he himself was hung in effigy. He then went over, with a few adherents, to Charles XII, and took an active part in the unfortunate campaign in the Ukraine. After the defeat at Pultawa, Mazeppa fled to Bender, where he died 1709. Lord Byron has made Mazeppa the hero of a poem.

Mazzola, or **Mazzuoli**, Francesco (called *Il Parmegiano*), one of the most distinguished painters of the Lombard school, born at Parma, in 1503, was the son of Filippo Mazzola, a painter, surnamed *Dall' Erbette*. In his sixteenth year, he executed a Baptism of Christ, which displays his remarkable talents. Correggio's presence in Parma, in 1521, gave him an opportunity of becoming acquainted with the style of that master. In 1522, Mazzola painted, among other works, a Madonna, with the holy Children, a St. Jerome, and a St. Bernardin of Feltri, a celebrated oil-painting, which is preserved in the monastery Della Nunziata, but which has suffered from time and unskilful hands. In Rome, which the young artist visited in 1523, with the hope of attracting the notice of the pope Clement, the works of Raphael made a deep impression upon him, the influence of which is perceptible in his subsequent paintings, in which he aimed at a union of Correggio's grace with Raphael's expression. On the capture of Rome, in 1527, he suffered great losses, and, after that event, went to Bologna. Among his most celebrated paintings, executed in that city, are his St. Roch, the *Madonna della Rosa*, now at Dresden, and St. Margaret. He soon returned to Parma, and there executed the Cupid making a Bow, and painted several works for the church Della Steccata. But his health was feeble, and he was imprisoned by the overseers of that building, who had advanced him the money for works which he neglected to finish. Being set at liberty, on condition of completing them, he fled to Casalmaggiore, where he died, in 1540. His works are not numerous, much of his time having been wasted in the search after the philosopher's stone. With a thorough knowledge of his art, Mazzola united great correctness of drawing. Algarotti and Mengs accuse him of being sometimes guilty of affectation in his attempts at grace, and Fiorillo objects to his too great use of curved lines, and to his involving the limbs. His fire, grace, correct drawing, boldness of touch, and ease of composition, are undeniable.

Mazzuchelli, Giammaria, count, a nobleman of Brescia, who flourished in the early part of the eighteenth century, was the author of *Notizie istoriche e critiche intorno alla Vita, alle Invenzioni ed agli Scritti di Archimede Siracusano; La Vita di Pietro Aretino*. He also commenced a large and valuable biographical work, *Gli Scrittori d'Italia*, of which he only finished the two first letters of the alphabet, leaving a large collection of materials for the subsequent parts. Mazzuchelli died in 1765. During his life, was published his *Museum Mazzuchellianum, seu Numismata Virorum Doctrina præstantium* (1761, folio.)

Meaco, or **Kio**; a city of Japan, in Niphon, 160 miles south-west Jeddo; lon. 153° 30′ E.; lat. 35° 24′ N. It was once the metropolis of the whole empire: it is still the ecclesiastical capital, the residence of the dairi, or spiritual sovereign, and is the centre of the literature and science of the empire, the imperial almanac being published here, and most of the books that circulate through Japan. It is situated near the middle of the south coast, in a fertile and spacious plain, surrounded by high mountains, for the most part covered with stately temples, monasteries, burying-places, and pleasure-houses. Three rivers unite their streams in the centre of the city, whence the place is divided into upper and lower towns. This two-fold city appears to have been about twenty miles in length, and nine or ten in breadth, when in its full splendor, besides its large suburbs, and the imperial palace, which is a city by itself, and divided from the rest. The streets are generally narrow, but straight. Population, near 500,000, exclusive of several thousands that compose the dairi's court, and the bonzes and nuns, who amount to above 52,000. Its temples are numerous, and some of them very magnificent. Meaco, though much decayed, in consequence of the civil wars, is the grand store-house of the manufactures of Japan, and of foreign and home merchandise, and the principal seat of its commerce. (See *Japan.*)

Mead, Richard, a celebrated English physician, born 1673, was the son of a dissenting minister, studied at the universities of Utrecht and Leyden, and became an intimate with his fellow-pupil Boerhaave. He afterwards travelled in Italy. He returned to England in 1696, and became very distinguished in his profession. In 1702, he published Mechanical Account of Poisons, which he, long after, republished in an improved form. On the alarm occasioned by the plague at Marseilles, in 1719, he published a Discourse concerning Pestilential Contagion, which passed through many editions. He interested himself much in the introduction of inoculation for the small-pox, and assisted in the preliminary experiments made on condemned criminals. In 1727, he was appointed physician to king George II. Among his later writings are his treatises *De Imperio Solis ac Lunæ, in Corpora humana et Morbis inde oriundis* (1746); *De Morbis Biblicis* (1749); and *Monita Medica* (1750). He died in 1754.

Meadow Lark (*sturnus ludovicianus*, Lin.; *alauda magna*, Wils.). This well-known and beautiful species is found in every part of the U. States, in pasture-fields and meadows, especially the latter, from which circumstance its common name is derived. The meadow-lark is seldom or never seen in woods, except where they are open, and, instead of underwood, the ground is clothed with grass. After the building season is over, these birds collect in flocks. When they alight, it is generally on the highest part of the tree or shrub, whence they pour forth a clear but melancholy note. Their nests are generally built in or below a thick tuft of grass, and are composed of dry grass. The eggs are four or five in number, white, marked with specks, and several blotches of reddish-brown, particularly at the larger end. Their food consists of caterpillars, grub-worms, beetles, &c. The meadow-lark is about ten inches and a half in length. The throat, breast, and belly, are of a bright yellow, ornamented by an oblong crescent of a deep velvety black, on the lower part of the throat. (See Wilson's *Ornithol.*)

Meadville; a post-town, and capital of Crawford county, Pennsylvania, 37 miles south of Erie; lat. 41° 37′ N.; lon. 80° 11′ W.; population, in 1830, 1070. It is very pleasantly situated, regularly laid out, and contains a court-house, a bank, an arsenal, a college, a highly respectable academy, and two printing-offices. It is a flourishing town, connected with Erie, Pittsburg and Philadelphia, by turnpikes. Alleghany college, at Meadville, was incorporated in 1817. The college edifice, named Bentley hall, is 120 feet by 40, of three stories, and has an elevated and pleasant situation. The library consists of about 8000 volumes. The institution is under the direction of a board of fifty trustees. Commencement is held on the first Wednesday in August. The funds of the institution are not adequate to its objects; and, in 1830, only nine students had graduated at Alleghany college.

Meal-Tub Plot. (See *Popish Plot.*)

Mean; the middle between two extremes: thus we say, the "mean motion of a planet," its "mean distance," &c., to signify a motion, or distance, which as much exceeds the least motion or distance as it is exceeded by the greatest. The *mean*, or *mean proportion*, is the second of any three proportions. In an arithmetical proportion, the *mean* is half the sum of the extremes; in a geometrical, the *mean* is the square root of the product of the extremes. *Mean time* is the mean or average of apparent time. (See *Time*, and *Equation of Time.*)

Measles (*rubeola*, from *ruber*, red); an exanthematic disease, which appears to have been unknown to the ancient physicians; the time of its first appearance in Europe is uncertain. It is communicated by the touch of infected persons or things. It is sometimes epidemic. Persons of all ages are liable to its attacks; but it is more common in infants, and rarely affects an individual a second time. The symptoms are hoarseness, cough, drowsiness, and, about the fourth day, an eruption of small red spots (hence the name *measles; German*, *Masern*, spots), which, after three days, end in scales. There is more or less of fever, attended with the usual febrile affections. The measles, even when violent, are not often of a putrid tendency, although such a disposition sometimes prevails. In the case of the simple measles, the best treatment is abstinence from food, and the use of mild, mucilaginous, sweetened drinks. Bleeding is only proper in the inflammatory measles. Some writers have treated the measles as merely an inflammation of the skin; but this is only a symptom of the disease, and not the disease itself.

Measures. The general principle that simplicity and uniformity are the result of advancement in civilization, is strikingly exemplified in the case of measures. Formerly, every province, and almost every place of importance, had its own measures, which proved a most perplexing hinderance to commercial intercourse. In modern times, many attempts at uniformity have been made. Two modes most naturally suggested themselves,—either to declare the measures of one place or province the universal measure (as has been done in England, where, by an act of parliament, in June, 1824, the standard London measures and weights were declared to be the standards for weights and measures throughout the realm, and in Prussia, where the Berlin weights and measures were made the rule for the whole kingdom), or to establish new measures, founded upon unalterable principles, upon the laws of nature, as has been done in France. The latter is obviously the most rational and most just, because it is arbitrary to make a whole country follow the measures of the capital, or of a province, if these measures themselves have nothing in particular to recommend them. In the article *France*, division *Decimal Measures*, is given a brief account of that admirable system, the philosophical character of which is bringing it more and more into use among the learned of the European continent. (For more information respecting it, see Delambre's *Base du Système métrique*; *Géodésie*, by Puissant; and *Manuel des Poids et Mesures*, by Tarbe.) The English yard is determined by oscillations of a pendulum at London. This is still an arbitrary standard, as the oscillations vary in different parallels of latitude. It is not, indeed, so arbitrary as the taking the foot of Louis XIV for a measure, yet it is not so philosophical as the French. In the U. States, the English system of measures and weights has been followed.—See the interesting *Report upon Weights and Measures*, by John Quincy Adams, when secretary of state (Washington, 1821), in consequence of an act of congress.—Measures are either

measures of
1. length;
2. surface;
3. solidity or capacity;
4. force, or gravity, or what is commonly called *weight*;
5. angles;
6. time;

and their respective standards are, in England and the U. States, a yard, square yard, or the $\frac{1}{4840}$ of an acre, a cubic yard, a gallon, pound weight, degree, minute. The English act already alluded to, for establishing uniform measures throughout the realm, and called the *act of uniformity*, took effect Jan. 1, 1826. The system thus established is called the *imperial* system. Its rationale is as follows: Take a pendulum which will vibrate seconds in London, on a level of the sea, in a *vacuum*; divide all that part thereof which lies between the axis of suspension and the centre of oscillation into 391,393 equal parts; then will 10,000 of those parts be an imperial inch, twelve whereof make a foot, and thirty-six whereof make a yard. The standard yard is "that distance between the centres of the two points in the gold studs in the straight brass rod, now in the custody of the clerk of the house of commons, whereon the words and figures 'Standard yard, 1760' are engraved, which is declared to be the genuine standard of the measure of length called a *yard*; and, as the expansibility of the metal would cause some variation in the length of the rod in different degrees of temperature, the act determines that the brass rod in question shall be of the temperature of 62° (Fahrenheit). The measure is to be denominated the *imperial standard yard*, and to be the only standard whereby all other measures of lineal extension shall be computed. Thus the foot, the inch, the pole, the furlong, and the mile, shall bear the same proportion to the imperial standard yard as they have hitherto borne to the yard measure in general use." The act also makes provision for the restoration of the standard yard, in case of loss, destruction, or defacement, by a reference to an invariable natural standard, which is to be that proportion which the yard bears to the length of a pendulum, vibrating seconds of time in the latitude of London, in a *vacuum* at the level of the sea; which is found to be as thirty-six inches (the yard) to 39.1393 (the pendulum); thus a sure means is established to supply the loss which might by possibility occur. Take a cube of one such inch of distilled water, at 62° of temperature, by Fahrenheit's thermometer; let this be weighed by any weight, and let such weight be divided into 252458 equal parts, then will 1000 of such parts be a troy grain; and 7000 of those grains will be a pound avoirdupois, the operation having been performed in air. Ten pounds, such as those mentioned, of distilled water, at 62° of temperature, will be a gallon, which gallon will contain 277 cubic inches, and $\frac{274}{1000}$ parts of another cubic inch. The standard pound is determined to be that standard pound troy weight, made in the year 1758, in the custody of the clerk of the house of commons; such weight is to be denominated the *imperial standard troy pound*, and is to be "the only standard measure of weight from which all other weights shall be derived, computed and ascertained; and one twelfth part of the said troy pound is to be an ounce, and one twentieth part of such ounce a pennyweight, and one twenty-fourth part of such pennyweight a grain; so that 5760 such grains shall be a pound troy, and 7000 such grains a pound avoirdupois, and one sixteenth part of the said pound avoirdupois an ounce avoirdupois, and one sixteenth part of such ounce a drachm." If the standard pound shall be lost, destroyed or defaced, the act directs that it shall be recovered by reference to the weight of a cubic inch of water; it having been ascertained that a cubic inch of distilled water, weighed in air by brass weights, at the temperature of 62° (Fahrenheit), and the barometer at 30 inches, is equal to 252.458 grains; and, as the standard troy pound contains 5760 such grains, it is therefore established that the original standard pound may be at any time recovered, by making another weight to bear the proportion just mentioned to a cubic inch of water. The standard gallon is determined by the act to be such measure as shall contain ten pounds avoirdupois of distilled water, weighed in air, at the temperature of 62° (Fahrenheit), and the barometer at 30 inches; and such measure is declared to be the *imperial standard gallon*, and the unit and only standard measure of capacity to be used, as well for wine, beer, ale, spirits, and all sorts of liquids, as for dry goods not measured by heaped measure; and all other measures are to be taken in parts or multiples of the said imperial standard gallon, the quart being the fourth part of such gallon, and the pint one eighth part, two such gallons making a peck, eight such gallons a bushel, and eight such bushels a quarter of corn, or other dry goods, not measured by heaped measure. The standard for heaped measure, for such things as are commonly sold by heaped measure, such as coal, culm, lime, fish, potatoes, fruit, &c., is to be "the aforesaid bushel, containing eighty pounds avoirdupois of water, as aforesaid, the same being made round with a plane and even bottom, and being nineteen and a half inches from outside to outside;" and goods thus sold by heaped measure are to be heaped "in the form of a cone, such cone to be of the height of at least six inches, the outside of the bushel to be the extremity of the base of such cone." Three such bushels are to be a sack, and twelve such sacks a chaldron.—*Stricken Measure.* The last-mentioned goods may be sold either by the heaped measure, or by the standard weight, as before-mentioned; but for every other kind of goods not usually sold by heaped measure, which may be sold or agreed for by measure, the same standard measure is to be used, but the goods are not to be heaped, but stricken with a round stick, or roller, straight, and of the same diameter from end to end. Copies and models of the standard of length, weight and measure, are to be made and verified under the direction of the treasury, and every county to be supplied with them for reference whenever required. Existing weights and measures may be used, being marked so as to show the proportion they have to the standard measures and weights; tables of equalization of the weights are to be made by the treasury; tables, also, for the customs and excise, by which the duties will be altered so as to make them equal to what they are at present, in consequence of the alterations in the weights and measures. The measures now in use in England and the U. States are as follows:

1. MEASURE OF LENGTH.

12 inches	=	1 foot
3 feet	=	1 yard
5 1-2 yards	=	1 rod, or pole
40 poles	=	1 furlong
8 furlongs	=	1 mile
69 1-15 miles	=	1 degree of a great circle of the earth.

An inch is the smallest lineal measure to which a name is given, but subdivisions are used for many purposes. Among mechanics, the inch is commonly divided into eighths. By the officers of the revenue, and by scientific persons, it is divided into tenths, hundredths, &c. Formerly, it was made to consist of twelve parts, called *lines*; but these have properly fallen into disuse.

Particular Measures of Length.

1 nail	=	2 1-4 inches	used for measuring cloth of all kinds.
1 quarter	=	4 nails	
1 yard	=	4 quarters	
1 ell	=	5 quarters	
1 hand	=	4 inches	used for the height of horses.
1 fathom	=	6 feet, used in measuring depths.	
1 link	=	7 92-100 inches	used in land measure, to facilitate computation of the content, 10 square chains being equal to an acre.
1 chain	=	100 links	

2. MEASURE OF SURFACE.

144 square inches = 1 square foot
9 square feet = 1 square yard
30 1-4 square yards = 1 perch, or rod
40 perches = 1 rood
4 roods, or 160 perches = 1 acre
640 acres = 1 square mile.

3. MEASURES OF SOLIDITY AND CAPACITY.

Division I.—Solidity.

1728 cubic inches = 1 cubic foot
27 cubic feet = 1 cubic yard.

Division II.

Imperial measure of capacity for all liquids, and for all dry goods, except such as are comprised in the third division:

4 gills = 1 pint = 34 2-3 cubic in., nearly
2 pints = 1 quart = 69 1-3 " " "
4 quarts = 1 gallon = 277 1-4 " " "
2 gallons = 1 peck = 554 1-2 " " "
8 gallons = 1 bushel = 2218 1-5 " "
8 bushels = 1 quarter = 10 1-4 cubic feet, nearly
5 quarters = 1 load = 51 1-3 " " "

The four last denominations are used for dry goods only. For liquids, several denominations have been heretofore adopted, viz. for beer, the firkin, of 9 gallons, the kilderkin, of 18, the barrel, of 36, the hogshead, of 54, and the butt, of 108 gallons. These will probably continue to be used in practice. For wine and spirits, there are the anker, runlet, tierce, hogshead, puncheon, pipe, butt and tun; but these may be considered rather as the names of the casks in which such commodities are imported, than as expressing any definite number of gallons. It is the practice to guage all such vessels, and to charge them according to their actual content.

Division III.

Imperial measure of capacity, for coals, culm, lime, fish, potatoes, fruit, and other goods commonly sold by heaped measure:

2 gallons = 1 peck = 704 cubic in., nearly
8 gallons = 1 bushel = 2815 1-2 " "
3 bushels = 1 sack = 4 8-9 cubic feet, nearly
12 sacks = 1 chaldron = 58 2-3 " " "

(For measures of weights, see *Weights.*)

5. ANGULAR MEASURE;

or, Divisions of the Circle.

60 seconds = 1 minute
60 minutes = 1 degree
30 degrees = 1 sign
90 degrees = 1 quadrant
360 degrees, or 12 signs = 1 circumference.

Formerly, the subdivisions were carried on by sixties; thus the second was divided into 60 thirds, the third into 60 fourths, &c. At present, the second is more generally divided decimally into tenths, hundredths, &c. The degree is frequently so divided.

6. MEASURE OF TIME.

60 seconds = 1 minute
60 minutes = 1 hour
24 hours = 1 day
7 days = 1 week
28 days = 1 lunar month
28, 29, 30, or 31 days = 1 calendar month
12 calendar months = 1 year
365 days = 1 common year
366 days = 1 leap year.

In 400 years, 97 are leap-years, and 303 common. The second of time is subdivided like that of angular measure.—We shall now give a table of itinerary measures of different countries, exhibiting the number of each answering to 100 English miles; also the length of a single measure of each sort in English yards:

		No. of each = 100 English Miles.	Length of a single Meas. in Eng. yds.
Arabia,	Miles	81,93	2148
Bohemia,	"	17,36	10137
Brabant,	"	28,93	6082
Burgundy,	"	28,46	6183
China,	Lis	279,80	629
Denmark,	Miles	21,35	8244
England,	"	100,00	1760
	Geographical	86,91	2025
Flanders,	Miles	25,62	6869
France,	Leagues astronomical*	36,21	4860
	Do. marine	28,97	6075
	Do. legal, of 2000 toises	41,28	4263
Germany,	Miles geog.	21,72	8101
	Do. long	17,38	10126
	Do. short	25,66	6859
Hamburg,	Miles	21,35	8244
Hanover,	"	15,23	11559
Hesse,	"	16,68	10547
Holland,	"	27,52	6395
Hungary,	"	19,31	9113
India,	Cos	60,43	2894
Ireland,	Miles	57,93	3038
Italy,	"	86,91	2025
Lithuania,	"	18,00	9781
Oldenburg,	"	16,26	10820
Persia,	Parasang, or farsang	27,33	6440
Poland,	Miles short	28,97	6075
	Do. long	21,72	8101
Portugal,	Legoas	26,03	6760
Prussia,	Miles	20,78	8468
Rome,	Modern miles	86,91	2025
	Ancient do. of 8 stadia	109,18	1612
Russia,	Versts	150,81	1167
Saxony,	Miles	17,76	9905
Scotland,	"	88,70	1984
Silesia,	"	27,67	7083
Spain,	Leguas common, of 800 varas	23,73	7416
	Do. legal, 500 varas	37,97	4635
Suabia,	Miles	17,38	10126
Sweden,	"	15,04	11700
Switzerland,	"	19,23	9153
Turkey,	Berries	96,38	1826
	Miles	80,05	1409

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* There are 25 leagues in a degree. A French post is equal to 2 leagues, or to 5,52 Eng. miles.

FOOT MEASURES

OF VARIOUS COUNTRIES REDUCED TO ENGLISH FEET.

	Eng. Feet.
Amsterdam,	,930
Antwerp,	,940
Augsburg,	,972
Barcelona,	,992
Bâle,	,944
Berlin,	,992
Berne,	,962
Bologna,	1,244
Bremen,	,955
Breslau,	1,125
Brussels,	,902
China, mathem.,	1,127
China, imperial,	1,051
Constantinople,	2,195
Copenhagen,	1,045
Cracow,	1,169
Dantzic,	,923
Dresden,	,929
Florence,	,994
Frankfort,	,933
Hamburg,	,933
Leghorn,	,992
Leipsic,	1,034
Leyden,	1,023
Liege,	,944
Lisbon,	,952
Lyons,	1,119
Madrid,	,915
Marseilles,	,814
Mentz,	,988
Moscow,	,928
Munich,	,947
Nuremberg,	,996
Padua,	1,406
Palermo,	,747
Paris,	1,066
Rhinland,	1,023
Prague,	,987
Rome,	,966
Stockholm,	1,073
Strasburg,	,956
Trent,	1,201
Turin,	1,676
Tyrol,	1,096
Venice,	1,137
Verona,	1,117
Vicenza,	1,136
Vienna,	1,036
Ulm,	,826
Urbino,	1,162
Utrecht,	,741
Warsaw,	1,169
Wesel,	,771
Zurich,	,979

OTHER MEASURES,

REDUCED TO ENGLISH FEET.

	Eng. Feet.
Amsterdam ell,	2,223
English fathom,	6,
French metre,	3,198
French toise,	6,396
Venice ell,	2,089
Vienna ell,	2,557

ANCIENT MEASURES.

	Eng. Feet.
Arabian foot,	1,095
Babylonian foot,	1,144
Egyptian foot,	1,421
Greek foot,	1,007
Hebrew foot,	1,212
Hebrew sacred cubit,	2,002
Hebrew great cubit,	12,012
Roman foot,	,965 to ,970
Egyptian stadium,	730,8
Roman mile of Pliny,	4840,5
Roman mile of Strabo,	4905,
Pythian or Delphic stadium,	576,877
The mean, or nautical, or Persian stadium,	532,147
Great Alexandrian, or Egyptian stadium,	710,659

JEWISH ITINERARY MEASURE.

	Eng. Miles.	Paces.	Feet.
Cubit,	0	0	1,824
Stadium,	0	145	4,6
Sabbath day's journey,	0	729	3,0
Eastern mile,	1	403	1,0
Parasang,	4	153	3,0
A day's journey,	33	172	4,0

The following comparative view of the weights and measures of England and France, was published by the royal and central society of agriculture in Paris, in their annuary for 1829:

MEASURES OF LENGTH.

English.	French.
1 inch (1-36th of a yard)	2,539954 centimetres
1 foot (1-3d of a yard)	3,0479449 decimetres
1 yard imperial	0,91438348 metre
1 fathom (2 yards)	1,82876696 metre
1 pole, or perch (5 1-2 yd.)	5,02911 metres
1 furlong (220 yards)	201,16437 metres
1 mile (1760 yards)	1609,3149 metres
French.	**English.**
1 milimetre	0,03937 inch
1 centimetre	0,393708 inch
1 decimetre	3,937079 inches
1 Metre	39,37079 inches 3,2808992 feet 1,093633 yard
1 myriametre	6,2138 miles

SQUARE MEASURE.

English.	French.
1 yard square	0,836097 metre square
1 rod (square perch)	25,291939 metres square
1 rood (1210 yards sq.)	10,116775 ares
1 acre (4840 yards sq.)	0,404671 hectares
French.	**English.**
1 metre square	1,196033 yard square
1 are	0,098845 rood
1 hectare	2,473614 acres

SOLID MEASURE.

English.	French.
1 pint (1-8th of a gallon)	0,567932 litre
1 quart (1-4th of a gallon)	1,135364 litre
1 gallon imperial	4,84345794 litres
1 peck (2 gallons)	9,0869159 litres
1 bushel (8 gallons)	36,347664 litres
1 sack (3 bushels)	1,09043 hectolitre
1 quarter (8 bushels)	2,907813 hectolitres
1 chaldron (12 sacks)	13,08516 hectolitres
French.	**English.**
1 litre	1,760773 pint 0,2200967 gallon
1 decalitre	2,2009667 gallons
1 hectolitre	22,009667 gallons

WEIGHTS.

English Troy.	*French.*
1 grain (1-24th of a pennyweight)	0,06477 gramme
1 pennyweight (1-20th of an ounce)	1,55456 gramme
1 ounce (1-12th of a pound troy)	31,0913 grammes
1 pound troy, imperial	0,3730956 kilogramme

English Avoirdupois.	*French.*
1 drachm (1-16th of an ounce)	1,7712 gramme
1 ounce (1-16th of a pound)	28,3384 grammes
1 pound avoirdupois imperial	0,4534148 kilogramme
1 hundred weight (112 pounds)	50,78246 kilogrammes
1 ton (20 cwt.)	1015,649 kilogrammes

French.	*English.*
1 gramme	15,438 grains troy 0,643 pennyweight 0,03216 ounce troy
1 kilogramme	2,68027 pounds troy 2,20548 pounds avoirdupois.

(For more particular information on the subject of weights, see the article *Weights.*)

MECENAS. (See *Mæcenas.*)

MECCA, or MEKKA; a city of Arabia, capital of Hedsjas, about 50 miles from Jidda, its port, on the Red sea, 180 south of Medina; lat. 21° 18′ N.; lon. 40° 15′ E.; population, formerly, 100,000; according to Burckhard, who visited it in the character of a devout Mussulman, now about 30,000, with accommodations for as many pilgrims. It was known to the Greeks by the name of *Macoraba*, and is called, by the Mussulmans, *Omm-Alcora*, or *Mother of Cities*, because it was the birth-place of Mohammed. It is situated in a dry, barren and rocky country, in a narrow valley, enclosed by mountains. The water is brackish, and the pastures distant, and every thing unfavorable for the support of a large population. It is two miles long, and one broad; the streets regular and handsome, being sanded, level and convenient; the houses of stone, of three or four stories, built in the Persian or Indian, rather than the Turkish style, having neat fronts, ornamented externally with paintings and mouldings. Many quarters are now abandoned to ruins, and of the houses that remain, two thirds are unoccupied. Mecca is a city of the greatest celebrity among the Mohammedans, and contains the three holiest things in the Mohammedan world,—the well *Zemzem*, the *Caaba* (or house of God), and the Black Stone. Zemzem is believed, by the followers of Mohammed, to be the identical spring which gushed forth in the wilderness for the relief of Hagar and Ishmael; and marvellous efficacy is ascribed to its waters, in giving health to the sick, imparting strength of memory, and purifying from the effects of sin. The Caaba, or Kaaba, is of great antiquity. (See *Kaaba.*) The Black Stone, the principal wonder of the place, is said to have been brought by the angel Gabriel, and to have been originally of a dazzling whiteness. The grand ceremony through which the pilgrims pass is that of going seven times round the Kaaba, kissing each time the sacred stone. It is generally supposed to be a meteoric stone. Forty eunuchs are at present maintained there, by the revenues of the temple and the gifts of the pious. Mecca is entirely supported by pilgrims from every part of the Mohammedan world; but the number is now much less than formerly, owing partly to the decay of religious zeal, and the decline of power and wealth of the Mohammedan states; and partly, also, to Mecca's being subject to the incursions of the Wahabees. The commerce, now greatly diminished, consists chiefly in the productions and manufactures of India. Notwithstanding the sacred character of the city, it has now little reputation for learning, and Burckhard found no book shops in the place. No Christian is allowed to enter Mecca, and its territory is regarded as sacred to a certain distance round, which is indicated by marks set up. The male Meckaways are all tattooed at the age of forty days, to prove their origin in the holy city. Mecca was taken by the Wahabees, in 1804, but soon after recovered by the sherif Galib. It was again captured in 1807, and again delivered by Mohammed Ali, pacha of Egypt, in 1818. (For the ceremony which takes place on the arrival of the pilgrims, see *Arafat.*)

MÉCHAIN, Pierre François André, an astronomer, born Aug. 16, 1744, at Laon, went to Paris in 1772, and was there favorably received by Lalande. His discovery and calculation of two comets, in 1781, rendered him generally known; and he was among the first to delineate the probable orbit of the newly discovered planet Uranus. In 1782, the academical prize for the best essay on the return of the comet of 1661 was awarded to him; and, when it appeared again, eight years afterwards, his calculations were proved to be correct. In the course of eighteen years, Méchain discovered fourteen comets, the orbits of which he calculated. No important celestial phenomenon escaped his notice, and his observations were recorded in the *Connaissance des Temps*, which was edited by him from 1788 to 1794. When the constituent assembly ordered the preparation of a new system of measures, based on the meridian of the earth, Méchain was one of the astronomers appointed to measure the arc of the meridian between Dunkirk and Barcelona. He received, for his part of this difficult operation, the portion of country lying between Barcelona and Rhodez, where no measurements had previously been made. Political causes also contributed to embarrass his progress; and the Spanish government not only interrupted his triangulation, but detained him for some time prisoner. He was enabled to resume his labors in 1803, with the intention of extending them to the Balearic isles. He died at Valencia, in 1804, of the yellow fever, a victim of his exertions in the cause of science. Besides his treatises in the *Connaissance des Temps*, and his memoirs on the different comets, we find, also, the results of his observations in the *Base du Système métrique décimal*, by Delambre (Paris, 1806—10, 3 vols.).

MECHANICS (from μηχανη, a machine or contrivance) is the science which treats of forces and of motion. (See *Force*.) It had, probably, its origin in the construction of machines, and an important branch of it, practical mechanics, investigates their construction and effects. Forces, acting upon bodies, may either produce rest or motion. In the former case, they are treated of under statics, in the latter, under dynamics (q. v.). Hydrostatics (q. v.) and hydraulics (q. v.) respectively treat of *fluids*, at rest, or in motion.—When a body is acted on by two or more forces, which counteract each other, so that no motion is produced, the body and the forces are said to be in a state of *equilibrium*. The conditions of equilibrium form the subject of statics. 1. A body acted upon by two equal and opposite forces will remain at rest. In this case, either of the two opposite forces may be made up of several parallel forces. It is then said to be the *resultant* of those forces. 2. If two forces act, with reference to each other, obliquely upon a body, they may be counteracted by a third (called also their *resultant*). If the two forces be represented, in direction and intensity, by two contiguous sides of a parallelogram, their resultant will be represented, in direction and intensity, by its diagonal. This is called the *parallelogram of forces*. 3. If several forces, acting at once upon a polygon, can be represented, in direction and intensity, by several sides of a polygon, they may be counteracted by a single force, acting in a direction and with an intensity represented by the side which would be necessary to complete the polygon.—All the changes which come under our observation, are the consequence of motions produced by the action of a few great elementary forces. The consideration of the motions which take place among the particles only of one or of several bodies, comes within the department of chemistry. Those motions which affect masses are the appropriate subject of the second part of mechanics. All motions are found to take place in conformity to a few universal principles. Deduced from observation, and confirmed by experiment, these principles have often been placed at the beginning of treatises on mechanics, under the name of the *laws of motion*. If not expressed in this manner, the truths they declare, making an essential part of the principles of the science, are necessarily introduced under some other form. Their comprehensiveness suits them to our purpose, and they are here quoted in the language of Newton. I. "Every body perseveres in its state of rest, or of uniform motion in a right line, unless it is compelled to change that state by forces impressed thereon." This is called the law of *inertia*, and expresses the entire indifference of matter to motion or rest. The proposition that a body will never begin to move of itself needs no proof. It is the conclusion of universal observation. Wherever we observe motion, we conclude that there is a power in action to produce it. The other part of the law, that motion is, in its nature, as permanent as rest, and that it is in a right line, is far from being a self-evident, or even an obvious truth. Limited observation would lead to the conclusion that all matter has a tendency to rest, and such has long been, and still is, a common error. The same limited observation led some of the ancient astronomers to imagine that all bodies, when forced into a state of motion, naturally moved in curve lines. There is, however, abundant proof of the permanence of motion; and if friction and the resistance of the air, the two most universal obstacles to the motion of bodies near the surface of the earth, could be entirely removed, instances of permanent motion would be still more numerous. In proportion as they are removed, or as bodies are beyond their influence, we observe a tendency in motions to become more and more permanent. A marble, rolled on the grass, soon stops; on a carpet, it moves longer; on a floor, still longer; and on smooth, level ice, where the wind is not unfavorable, it continues very long in motion. In a vacuum, where the resistance of air is not felt, two windmills, whose pivots have equal friction, and which are set in motion by equal forces, continue to move equally long, whatever be the position of their vanes. In the air, the one whose vanes cut the air, will move much longer than the one whose vanes are opposed to it. A pendulum in a vacuum, having only the stiffness of the riband by which it is suspended to overcome, will vibrate for a whole day. A spinning top, in the same situation, retarded only by the friction of its point, continues spinning for hours. In all these cases, the continuance of the motion is proportioned to the diminution of friction and resistance. We can hardly avoid the conclusion, that a body once put in motion, would, if left to itself, continue to move with undiminished velocity. The heavenly bodies, moving in free space, subject to no opposing influence, keep on in their path with a velocity which has remained unabated since first they were launched from the hand of the Creator. They move, not, indeed, in straight lines, but in curves, as they are drawn towards each other, and towards a centre, by the universal force of gravity. (See *Gravity.*) This force does not diminish their velocity, but deflects them continually from the right line in which they tend to move. If this central force were suspended, they would all shoot forward into space, and the harmony of their motions would cease. Some force similar to this central tendency is always in action, whenever we see bodies move in curve lines. The stone, to which a boy gives accumulated force by whirling it round in a sling, is, for a time, kept in its circle by the central force represented by the string; when let loose, it darts forward in the air, turning not to the right or left, until the atmospherical resistance destroys its motion, or the force of gravity bends it to the ground. A full tumbler of water, placed in a sling, and made to vibrate with gradually increasing oscillations, may, at last, be made to revolve in a circle about the hand, each drop tending to move out in a straight line from the centre, and therefore remaining safe in the tumbler, whose bottom is always farthest from the centre. In a corn mill, the grain is poured gradually into a hole in the centre of the upper mill-stone. The weight of the stone pulverizes the corn, while its circular motion throws it out, as fast as it is ground, into a cavity around the stone. When a vessel, partly full of water, is suspended by a cord, and made to turn rapidly round, the water, in its tendency to move out in a straight line, recedes from the centre, and is gradually heaped up against the sides of the vessel, sometimes even leaving a portion of the bottom dry. Water, moving rapidly in the stream of a river, or the tide of the sea forced violently through a narrow passage between opposite rocks, not unfrequently forms a whirlpool on the same principle. Bent out of its course by a projecting ledge, it departs, as if reluctantly, from a straight line, and heaps itself up towards the circumference of the circle in which it is compelled to move. To this cause, too, it is owing, however little we might expect such a consequence, that a river, passing through an alluvial soil, and once turned from its onward channel, continues to pursue a meandering course to the sea. Driven, by any cause, to one side, it strikes the bank with all its violence, is repelled, and rebounds with the same force to the opposite side, continually wearing the two banks, and leaving a larger space on the inner side of the bends. The force with which a body constrained to move in a circle, tends to go off in a straight line, is called the *centrifugal force.* Advantage is taken of it in many processes of the arts, and in all circular motions of machinery. The clay of the potter is placed on the centre of a swiftly revolving table, and while his hand shapes it, the centrifugal force causes it to assume the desired dimensions. A globe, or sheet of molten glass, is in a similar manner made to expand itself. The legs of a pair of tongs, suspended by a cord, and made to revolve by its twisting or untwisting, will diverge in proportion to the velocity of the revolution. The *steam governor* of Watt is constructed and acts on this principle. Weights are attached to two rods, to which circular motion is communicated by the machinery which is to be governed. If the motion be so rapid as to cause these rods to diverge from each other beyond a certain angle, they act upon a valve which partly closes, and diminishes the supply of steam. With a slower motion, the rods collapse, and the valve is opened. In consequence of the centrifugal force occasioned by the rotation of the earth, the weight of bodies at the equator is diminished the 289th part. If the earth revolved on its axis in 84 minutes, the loose parts near the equator would be projected from the surface. Another consequence or particular of the law of inertia, is, that motion is communicated gradually. A force which communicates a certain quantity of motion in one second, will impart double the quantity in two seconds. A ship does not yield at once to the impulse of the wind, when the sails are set; its motion increases as new portions are successively imparted. A horse does not start at once with a carriage into his utmost speed; his force is at first spent in giving motion to the inert mass. Afterwards, with far less exertion, he keeps up the motion, being required to supply that portion only which is destroyed by the obstacles of the road. The motion communicated to a body, if not destroyed by some force, is accumulated. Thus a nail is driven in by all the force of the hand, accumulated through the whole time of the descent of the hammer. The knowledge of this fact gives the means of increasing the effective force of a moving power in a very great degree. A force of 50 pounds communicated every second to a loaded wheel, will, if not diminished by friction, or other cause of waste, enable it to overcome a resistance of 500 pounds once in every ten seconds. Such a wheel is called a *fly wheel.* (q. v.) II. "The alteration of motion is ever proportioned to the motive force impressed, and is made in the direction of the right line in which that force is impressed." This is only a statement, that a double force generates a double motion; that motion cannot increase or diminish itself, nor turn to the right or left, without cause. In consequence of this, two or more forces acting at once on a body in different directions, cause it to take a direction different from that of either force, and, if one of them is a variable or constantly acting force, to move in a curve line. This is called the *composition of forces;* the single motion impressed upon the body being considered as composed of the several motions which the forces acting separately would have produced. A boat rowed, at the rate of three miles an hour, directly from the bank of a river which runs at the rate of two miles an hour, is acted on at once by the force of the rowers and that of the current, and will be found, at the end of an hour, three miles from the bank, and two miles below the point from which it started, having moved in a diagonal line between the directions of the two forces. (See *Forces.*) The *resolution* of forces is the reverse of this. A single force is considered as resolved into two or more others. A ship, sailing on a side wind, is sent forward by a part only of its force. The other part has no effect, or that only of driving her out of her course. III. "To every action there is always opposed an equal reaction; or the mutual actions of two bodies on each other are equal and in opposite directions." If you press a stone with your finger, the finger is equally pressed by the stone. A horse drawing upon a load, is drawn backward by its whole weight, and if he succeed in moving it, it can only be with a velocity proportioned to the excess of his strength over the reaction of the load. A magnet and piece of iron attract each other equally; and if, when in the sphere of mutual attraction, one is fixed and the other free, which ever is free will be drawn to the other. Two equal boats, drawn towards each other by a rope, act in the same manner; if both are free, they meet in the middle. When a gun is discharged, it recoils with a force equal to that with which the ball is propelled, but with a velocity as much less as its weight is greater. If, in the side of a vessel of water, hanging perpendicularly by a cord, a hole be opened, the vessel will be pushed back from the perpendicular by the reaction of the jet of water, and will remain so while it flows. A consequence of this law is, that the earth is attracted by each body on its surface as much as it attracts, and that when a stone falls towards the earth, the earth rises to meet it.—The force with which a body acts is estimated by its velocity and mass conjointly, and is called its *momentum.* Thus, if two balls, of one and two pounds weight, respectively, be moving with the same velocity, the larger has twice the momentum of the smaller, since each pound of the larger has the same velocity as the ball of a single pound. A body of small weight may therefore be made to produce the same mechanical effect as a large one, by sufficiently increasing its velocity. The cannon ball of modern times is not less effectual in battering down walls than the massy battering ram of the ancients.—The forces which may be employed to give motion to machines are called *mechanical agents,* or *first movers.* They are water, wind, steam, gunpowder, and the strength of man and other animals. They may be indirectly referred to three independent sources—gravity, heat, and animal strength. (See these several articles.)

Gravity. A body falling from a state of rest, descends 16 feet, nearly (16.095), in one second; but, as all the motion which is communicated by gravitation remains in it, and it receives an accession of motion every indefinitely small portion of the first second, it is moving more rapidly at the end of the second than at any previous time, and, with that motion alone, if it continued uniform, would descend through twice 16, or 32 feet, in the next second; but, during this next second, as much motion is communicated as during the first, and consequently the body descends through three times 16, or 48 feet, in this next second. The whole of this accumulated motion would, alone, carry it through four times 16, or 64 feet, in the third second, and the continued action of gravitation carries it once 16; so that it actually descends five times 16, or 80 feet, during the third second. In the fourth second, it would, in the same manner, descend seven times 16 feet; in the fifth, nine times 16, &c., the series of odd numbers expressing the distances passed through in the successive seconds. By adding these numbers, we find that, at the end of two seconds, the body will have descended four times 16 feet; at the end of the third, nine times 16; at the end of the fourth, 16 times 16, &c.; the whole distance fallen through at the end of any number of seconds being found by multiplying the square of that number by 16 feet. Such is the simple and remarkable law of the descent of bodies by the uniformly accelerated velocity produced by gravitation. The velocity acquired in one second is sufficient, of itself, to carry a body through twice 16 feet; that acquired in two seconds would carry it four times 16 feet; that acquired in three seconds, through six times 16 feet, &c.; the velocities possessed at the end of any number of seconds being represented by twice that number multiplied by 16 feet. The following table exhibits, 1. the space fallen through in the successive seconds; 2. the whole space fallen through at the end of a number of seconds; and, 3. the final velocity:

Time,	1	2	3	4	5	6	7	8	9	10	seconds.
1. Successive Spaces,	1	3	5	7	9	11	13	15	17	19	times 16 feet.
2. Total Spaces,	1	4	9	16	25	36	49	64	81	100	" "
3. Final Velocity,	2	4	6	8	10	12	14	16	18	20	" "

By means of this table, a traveller, standing on the summit of a cliff, might ascertain its height above the plain or torrent below, with considerable accuracy, by letting fall a stone, and observing the time of its fall. It would only be necessary to make allowance for the resistance of the air, which, for small velocities, is not very great. (See *Projectiles.*) The same cause which communicates motion to a falling body, would gradually destroy that of a body ascending. A ball projected upwards with the velocity of 1000 feet per second, would, therefore, rise with a uniformly retarded motion to the height from which a body must fall to acquire that velocity. The phenomena of accelerated and retarded motion are beautifully exhibited by Atwood's machine for that purpose. In moving down an inclined plane, a solid body is urged by a portion of the force of gravitation, which is continually smaller as the plane is nearer to a horizontal position. (See *Inclined Plane.*) When it is horizontal, the whole weight of the body is sustained by the plane. The velocity acquired by bodies moving down planes of different inclinations, is the same as they would have acquired by falling freely down a distance equal to the perpendicular height of the plane.—It is necessary, in the construction of machines, carriages, buildings, bridges, and ships, and in many other cases, to ascertain exactly the centre of gravity of the whole and of each part; since, if the centre of gravity, in any body or system of bodies, be supported, the whole must remain firm, and in a state of rest, in every possible position. (See *Gravity, Centre of.*) The various problems arising from this necessity have been solved with great accuracy, and on fixed principles. In all regular solids, of uniform density, whether bounded by straight or curve lines, the centre of gravity coincides with the centre of magnitude. If a body of any shape be suspended, freely, from any one point of its surface, the straight line extending from that point to the centre of the earth will pass through the centre of gravity. This line is called the *line of direction.* The centre of gravity may, therefore, sometimes be found practically, by suspending a body successively from two of its points, and observing the poin where the lines of direction cross each other. The centre of gravity of a triangle is at one third the distance from the middle of the base to the vertex; that of a cone and of a pyramid, at one fourth the same distance. Stability, in every case, depends upon the position of the centre of gravity in reference to the base. The nearer it is to the base, and the farther the line of direction falls from each part of the perimeter of the base, the greater is the stability. The sphere rests equally in every position, because the centre of gravity is at the same distance from every part of the surface. It is unstable in every position, as it rests on a single point of the plane; and it yields to the smallest force, as the centre of gravity does not rise when the sphere revolves. In order that the pyramid or cone may be overturned, the centre of gravity must rise almost perpendicularly, and move for a great distance before it ceases to tend to fall back to its place. Hence their stability, and hence the propriety of giving to steeples, monuments, and other buildings of great height, a pyramidical or conical figure. Those carriages are most secure which are hung low, and have the wheels far apart. Whatever raises the centre of gravity or narrows the base, allows the line of direction more easily to pass without it, and diminishes stability. Hence we see the imprudence of rising in carriages or boats which are in danger of being overset, and hence the danger of of high loads on wagons, where the roads are not perfectly level. The force of gravity is not often employed directly as a mechanical agent, or prime mover. Those most frequently employed to give motion to machinery are water, wind, heat, and the strength of animals.

Water acts by its *weight* and by the *velocity* which it acquires from falling, in consequence of its weight. *Wind* acts by its *volume* or *mass* and its velocity. Both these agents are variable, and both act in a straight line. *Heat*, as given out by combustible materials, produces steam, or gas, or gives motion to air by making it lighter, and thus causing it to rise. The steam or gas, when formed, has a tendency to expand itself, presses against the sides of the vessel which contains it, and endeavors to escape with a force proportioned to the heat and pressure to which it is exposed. When allowed to escape in only one direction, it necessarily generates motion in a straight line. Steam, as usually employed, generates motion, which is alternately in one direction and the opposite. The strength of animals is commonly made to act upon some centre of resistance, by drawing, pushing, or pressing, and produces variable motions, naturally in a straight line, but often in a curve. The motions or pressures produced by all these agents are capable of being compared with those produced by weights. They might all be referred to a common standard, the unit of which should be the force required to raise a given weight a certain number of feet in a given time.

The mechanical agents are employed to measure time, to move ships and carriages, to raise weights, to shape wood and work metals, to overcome the resistance of air, of water and of cohesion, to draw out and form materials, and to combine them into new fabrics. To apply them to accomplish any one of these effects requires the intervention of some mechanical contrivance. Such a mechanical contrivance, whether consisting of a few or of many parts, is called a *machine*. A machine has been defined, "a system of bodies, fixed or movable, so connected together that a movement impressed on one of them shall be transmitted to the others." The object of a machine is often vaguely supposed to be to produce or augment power. It can never have this effect. The resistance of the fixed and the friction of the movable parts will always consume a part of the power of the prime mover. The real object of every machine is to increase or diminish the velocity of the moving force, to change its direction, to accumulate its action and expend it at a single effort, to distribute the force among a great number of small resistances, or to divide the force of a resistance so that it may be overcome by a series of actions, or by the continued action of the moving power. A machine may combine the action of several movers, and employ one to regulate the others, so that the final effect shall be perfectly uniform. The pendulum, the governor and the fly-wheel are employed for this purpose.

By the *mechanical powers*, are signified the simple machines to which all machines, however complex, may be referred. They are essentially three in number, but usually considered seven; 1. The *lever*, the *wheel* and *axis*; 2. the *inclined plane*, the *screw*, the *wedge*; 3. the *rope* and the *pulley*.

The *Lever* is a bar, resting on a support, called a *fulcrum*, or prop, for the purpose of raising, by a *power* applied to one end, a *weight* at the other. An iron crow used by workmen to raise heavy stones, affords a good instance of a lever. The stone is the weight; the block on which the crow rests, is the fulcrum; the strength of the men, the power. To gain any advantage by its use, the fulcrum must be nearer to the weight than to the power. If the distance from the power to the fulcrum be five times greater than the distance from the weight to the fulcrum, a force of one pound in the power will balance a pressure of five pounds in the weight. But in this case the end of the long arm of the lever will, as it turns on the prop, pass through a space five times greater than that of the short arm. By such a lever a man could raise 1000 pounds with the same exertion as would be required to raise 200 without a lever, but he could raise it only a fifth part so high in the same time. What he would gain therefore in power, would be lost in time. In theory, a lever is considered inflexible and without weight. There is an equilibrium when the power and weight are inversely as their distances from the fulcrum.—*Leverage* is the distance of the power from the fulcrum. The *mechanical advantage* or *purchase* is proportional to this distance, compared with that of the weight from the fulcrum. Levers are of three kinds, according to the relative position of the power, the prop and the weight. In the first, the prop is between the power and the weight. To it belong scissors, snuffers, pincers (in which the pivot or joint is the prop,) the handspike, the brake of a pump, &c. A hammer with its claw, is a bent lever of this kind. In the second, the weight lies between the fulcrum and the power. This includes the oar, where the boat is the weight to be moved; the door, of which the hinge is the fulcrum; the wheelbarrow, nut-crackers, bellows, and the knife attached at one end, used to chip dye-woods. In a lever of the third kind, the resistance is at one end and the fulcrum at the other. To this belong the pitchfork and spade, the one hand being the power, and the other the fulcrum, sheep-shears, with a bow at one end, giving a greater facility of motion. The bones of animals are levers of this kind, and are moved by muscles so attached as to give rapidity of motion at the expense of power. The ox-yoke is of this kind; the neck of each ox being the fulcrum with reference to the exertion of the other. The stronger of two oxen must have the short arm of the lever, that they may be able to pull together. So a load supported on a pole and borne by two men, must divide the pole unequally, if either is to be favored.—The mechanical advantage may be multiplied to any extent by a combination of levers of the first kind. Such a combination is used to *prove* the strength of iron cables.—To the lever are referred the various instruments employed for weighing. The most perfect of these is the common *balance*. For entire accuracy, the arms should be of precisely the same length, and, as nearly as possible, inflexible, light and strong. The axis on which it turns, and the points of suspension at the ends of the arms, should be sharp, and rest upon polished plates of steel.

The *Wheel* and *Axle* consists of a wheel attached to a smaller cylinder, and moving on the same axis. The weight to be raised has a cord winding round the cylinder, and the power is attached to the circumference of the wheel. It may be regarded as a continual lever, each spoke of the wheel representing the long arm, and the radius of the cylinder the short arm. The mechanical advantage depends on the ratio of the diameter of the wheel to that of the cylinder. In the *ship's windlass*, movable bars or handspikes are substituted for a wheel. The *capstan* is a vertical wheel and axle, used on board ships to weigh the anchor.—The wheel and axle may turn on different centres, and have their circumferences connected and made to act on each other, by means of a strap or belt, or by a system of cogs or teeth. This arrangement is called a *wheel and pinion*. (See *Wheel-Work*.) The efficacy of the wheel and axle may be increased, either by enlarging the diameter of the wheel, or diminishing that of the cylinder. The *Chinese capstan* furnishes the means, without resorting to either alternative, of increasing the mechanical efficacy to any degree. It consists of two cylinders of nearly equal diameters, turning upon the same axis, the weight being supported by the loop of a very long cord, one end of which unwinds from the smaller cylinder, while the other end is coiled upon the larger. The elevation of the weight by each revolution is equal to half the difference of the two circumferences, the mechanical advantage depending upon the smallness of this difference.

Inclined Plane.—When a drayman lays a plank from the street to the higher level of the floor of a store-house, that he may be able to roll in a heavy cask, he employs the principle of the *inclined plane*; and the more gradual the inclination of the plank, the more easily will he effect his purpose. That is, the advantage gained by the inclined plane is greater, the more the length of the plane exceeds its height. A road which is not level, is an inclined plane. When a road mounts over a hill, instead of winding round its foot, a team of horses with a load of a ton weight, must exert strength sufficient to lift the load perpendicularly into the air, to a height equal to that of the top of the hill, instead of that moderate exertion which is necessary to overcome the friction of the axis of the wagon, and the slight inequalities of a level road. Hence the absurdity of constructing roads in hilly countries, to pass directly over the tops of hills, instead of winding, by small circuits, along their base. A body descending freely on an inclined plane, moves with a velocity as much less than that with which it falls freely, as the height of the plane is less than the length. If the elevation were one sixteenth of the length, the body would roll down one foot in the first second, and four in two. It is on this principle that the equality in the vibrations of a pendulum may be explained. A long vibration takes no more time than a short one, because the body begins to fall, in this case, down a steep plane, and acquires great velocity. In a short vibration, the beginning of its path is a very gradual descent. A short pendulum vibrates more rapidly than a long one, because it has a shorter distance to move in a path of the same steepness. A body moving down an inclined plane, moves four times as far in two seconds as in one. A pendulum, to vibrate once in two seconds, must be, therefore, four times as long as one which beats seconds. The most remarkable application of the inclined plane is in the construction of the *marine rail-way*, on which, by the power of a few horses, a ship of 600 tons is drawn, with all its cargo, out of the water, high enough to allow workmen to pass under its keel.

The *Screw.*—Imagine an inclined plane to pass round an immense building, like the tower of Babel, affording means of ascending to the top, and you have the first idea of the *screw*. It is an inclined plane, wrapped spirally round a solid cylinder. The advantage gained by it depends on the slowness of the ascent, that is, on the number of turns or *threads*, as they are called, in a given distance. It is always used in combination with a lever. It is a machine of great power, commonly employed to produce compression or to raise heavy weights. Hunter's screw is a compound of two screws, with threads of different degrees of fineness, one moving within the other, the end advancing, at each revolution, through a distance equal to the difference of the threads.

The *Wedge* is a double inclined plane, used commonly to cleave wood or stone, and sometimes to elevate a large mass, as part of a building, or ship. The effect of a wedge depends, apparently, upon friction, elasticity, and the slowness with which motion is communicated to a mass of matter. When a wedge is driven in, the particles immediately in contact with it are, for a moment, displaced, the friction against it prevents it from receding, and when the displaced particles endeavor to resume their relative position, the rift is lengthened. To the wedge may be referred various cutting tools, such as axes, knives, swords, chisels; and nails and spikes to be driven into wood, as well as pins, needles, awls, &c. The saw and the file and rasp are modifications still more remote. The colter of a plough, the blade of a spade, and other instruments to penetrate the earth, are in the shape of a wedge.

The *Rope* is considered, in theory, as destitute of weight, and perfectly smooth and flexible. In this case, as in that of the other mechanical powers, the allowances to be made in practice for weight, rigidity, friction, &c., are ascertained by experiment, and combined with the results of theory. If a rope be stretched horizontally between two fixed points, by equal weights attached to the ends, any very small weight applied to the rope between these points will bend the rope, and thus raise the weights. If we suppose the rope to have been perfectly horizontal, the weight applied acts upon those at the ends with a mechanical advantage which may be considered infinite, as it acts at right angles to the directions of the opposite actions of those weights. This is a necessary consequence of the principles of the resolution of forces. The action of one or two forces can have no effect in counteracting a third, unless they act in such a direction that their action can be resolved into two, one of which is opposite to the direction of the third force. While the rope is horizontal, the two weights counterbalance each other, but produce no further effect, until the rope is bent into an angle. A bending of the rope must, therefore, take place, in consequence of the action of any force, however small. By bending the rope, it must raise the weights, and support them at a point above their former position, thus producing an equilibrium with them, however great they may be. This arrangement is one form of what is called the *funicular machine*. A necessary consequence of the principle on which it depends is, that when a rope or chain, of any material whatever, is stretched horizontally, its weight alone will prevent its being perfectly straight, and no force is sufficient to straighten a rope unless it hangs perpendicularly. Advantage is often taken of this power by seamen in tightening ropes, which have previously been drawn as closely as possible by the direct action of their strength.

The *Pulley* is a small wheel, moving on an axis or pin, which is fixed in a frame called a *block*. The circumference of the wheel has a groove for a rope to move in. The pulley is said to be *fixed* or *movable*, according as its block admits of motion or not. A fixed pulley gives no mechanical advantage, but it enables us to apply force more conveniently, by changing its direction. A man standing on the deck of a ship is able, by means of one fixed at the top of the mast, to raise a weight to that point by drawing downwards. In the same manner, ore is raised from mines, and water from deep wells. The wheel, in the grooved circumference of which the rope passes, gives facility to its motion by preventing the necessity of its bending suddenly round a sharp edge, and diminishes the friction by transferring it from the rope to the axis of the wheel. One or more grooved wheels, called *sheaves*, set in a block, and moving freely round an iron axis, constitute a pulley, and the combination of pulley and ropes, a *tackle*. If the rope, instead of being attached to the weight, passes through a movable pulley attached to the weight, and terminates in a hook or ring in the upper block, the tackle becomes an engine by which another advantage is gained. As, in this case, the weight is supported by two parts of a rope, each part sustaining one half, the power necessary to support one of these parts, is equal to only one half the weight supported, and, by drawing upon one end of the rope, with a power a little greater than one half of the weight, the whole weight will be raised. It is on this principle that advantage is gained by the pulley. If the weight were supported by the four parts of a rope, which passed through two fixed and two movable pulleys, each part sustaining one fourth of the weight, a power equal to one fourth part of the weight, attached to the free end of the rope, would balance the whole weight, and something more than one fourth would raise it. This advantage is purchased by the space through which the power must move, and the time occupied by the motion. To raise a weight 50 feet, by the combination last mentioned, the power must move over a space of 200 feet. The pulley is employed to elevate large weights to the tops of buildings, or to upper lofts in store-houses. Its numerous varieties are chiefly used on board ships. A great many experiments made by Rondelet, have shown that, for most purposes, the best proportions for the wheel of a pulley are, 1. that its diameter should be five times its thickness; 2. that the diameter of the pin should be one twelfth of that of the wheel; 3. that the wheel should have about one twelfth of its thickness on each side for its play in the block.

Additions might be made to the list of mechanical powers, with as much propriety as some of those enumerated are retained. The engine of oblique action, called usually the *toggle joint*, might be called a mechanical power. It is, however, more properly, a combination of levers, acting on the principle of the funicular machine. (For the hydraulic press, see *Hydraulics*.) Several popular treatises on mechanics have appeared within a few years. The last, and one of the best, is the volume on mechanics in Lardner's Encyclopædia, republished in Boston by the Society for the Diffusion of useful Knowledge. Arnott's Physics contains a valuable treatise, suited to the general reader. The treatise on mechanics, in the Library of Useful Knowledge, is short and clear. The Cambridge Mechanics is a very full view of the subject, compiled from the best continental authors. The *Principia* of Newton, the *Mécanique Analytique* of Lagrange, and the *Mécanique Céleste* of Laplace, occupy the highest place among works of abstract science. The translation of the latter by Bowditch, has brought the work within the reach of many to whom the original was inaccessible.

Mecheln, or Meckenen, Israel of; two artists, father and son, the former of whom appears to have been a painter, the latter a goldsmith, and one of the earliest and most distinguished engravers. They lived between 1450 and 1503. The son was born at Mecheln, near Bocholt. From his drawing, we may conjecture that he was a scholar of Van Eyk. Of the circumstances of his life, little else is known than that he lived, during his latter years, at Bocholt, and died there in 1503. His engravings are rare, and much sought after; yet they bear the marks of a rude taste and imperfect drawing, incorrect perspective, and other traits which characterize the period. They are chiefly valuable for the minute accuracy of their execution, and as monuments of the his tory of the art.

Mechlin, or **Mecheln** (in French, *Malines*); a city lately belonging to the kingdom of the Netherlands, in the Belgic province of Antwerp, five leagues south of the city of Antwerp, and four and a half north-east of Brussels, on the Dyle and the Louvain canal; archiepiscopal see; population, 18,000. The streets are broad and well paved, and the buildings handsome: the cathedral, with a tower 348 feet high; the Beguine house, which serves as an asylum for 800 widows or aged women; the arsenal, with a cannon foundery; the archbishop's palace, &c., are the principal. The lace, woollen, calico and hat manufactures are extensive, and the tanneries and breweries are considerable. Its commerce by the Dyle, which is navigable for large ships, is important in grain, oil, flax and hops. The time of its foundation is not known: it is an old city, and was surrounded by ramparts in the tenth century. It has been repeatedly inundated by the Dyle, and captured by the Spanish, Dutch, English and French. The latter destroyed its fortifications in 1804. (See *Netherlands.*)

Mechoacan, or **Valladolid**; one of the states of the Mexican republic, formed, in 1824, of the former province or intendancy of Mechoacan or Valladolid, bounded by the states of Guanaxuato and Mexico, and the Pacific ocean; lat. 18° to 20° 30′ N.; lon. 104° 20′ to 108° 50′ W. Its productions are cotton, corn, sugar-cane, indigo, gold, silver, copper, lead, &c. Mechoacan was an Indian kingdom at the time of the arrival of the Spaniards in Mexico, and was conquered by one of the generals of Cortez, in 1524. There are, at present, three tribes of Indians, forming the greatest part of its population, within its limits—the Tarascos, the Otomites and Chichimeks. The population was estimated by Humboldt, in 1803, at 376,400. (See *Mexico.*) Capital, Valladolid. (q. v.)

Meckel, John Frederic, doctor and professor at Halle, the third of this name of a family which has rendered much service to anatomy and medicine, was born at Halle, in 1781. His grandfather, John Frederic, who died in 1774, acquired the reputation of one of the first anatomists, by several treatises in the Transactions of the Academy of Berlin, especially by his dissertation *De Quinto Pare Nervorum Cerebri* (Göttingen, 1748). His father, Philip Frederic, who died in 1803, was professor of surgery and midwifery at Halle, and united the reputation of a scientific teacher with that of a popular and successful practitioner. The son, after making himself known as a scion worthy of his family, by his inaugural dissertation *De Conditionibus Cordis abnormibus*, undertook a course of scientific travels through Germany, Italy and France. He prosecuted chiefly the study of comparative anatomy, for which he has unquestionably done more than any of his countrymen. In his translation of Cuvier's Comparative Anatomy (Leipsic, 1809—10, 4 vols.), he embodied, in notes and observations, a mass of most valuable information. His Contributions to Comparative Anatomy (Leipsic, 1809—13, 2 vols.) soon followed, rich in original and sagacious views; after which he began to compose a System of Comparative Anatomy, the first part of which (Halle, 1821) has excited great expectations of the rest. His Manual of Pathological Anatomy (Leipsic, 1812—18, 3 vols.), his Manual of Human Anatomy (Halle, 1815—20, 4 vols.), the *Tabulæ Anatomico-pathologicæ* (Leipsic, 1817—26, 4 vols., fol.), the *Descriptio Monstrorum* (Leipsic, 1826, with plates, 4to.), all bear witness of the most laborious investigation, of rare sagacity, and of a deep insight into the laws of life, which he developes in a masterly manner. An idea, principally formed and practically illustrated by him, with success, is, that the human organization is developed, in its formation, by degrees, and these gradations correspond to the permanent forms of the different kinds of animals; and in monstrous births, he sees merely formations whose developement has ceased prematurely. As professor of anatomy and physiology at Halle, Meckel is one of the first ornaments of this university. His anatomical museum is unique among private collections of its kind in Germany. It was founded by his grandfather, and enlarged by his father, and he is himself continually enriching it with invaluable additions, especially for comparative anatomy. He has travelled, for scientific purposes, extensively, through Germany, Holland, France and England. He also made, in 1824, a tour through Naples and Sicily; all which have yielded many rich accessions to his science and his collections.

Mecklenburg-Schwerin; a grand-duchy in the north of Germany, lying between the Baltic, the kingdom of Hanover and the Prussian territories; a member of the Germanic confederation. The population is 430,927, principally Lutherans (3058 Jews); the superficial extent of the grand-duchy, 4833 square miles; revenue of the state, 2,200,000 guilders;

debt, between 8 and 10 millions; capital, Schwerin, with 11,230 inhabitants. The grand-duke has two votes in the *plenum*, and, with the grand-duke of Mecklenburg-Strelitz, the 14th vote in the diet. The two duchies have also a common supreme court of appeal at Parchim. The population of Mecklenburg-Schwerin is principally agricultural; the manufactures are inconsiderable; the foreign commerce is carried on chiefly from the ports of Rostock and Wismar; corn and cattle are the principal articles.

MECKLENBURG-STRELITZ; a grand-duchy in the north of Germany, divided into two parts by the grand-duchy of Mecklenburg-Schwerin. (q. v.) It has 75,500 inhabitants on a superficial area of 1590 square miles. It has one vote in the German *plenum*. The capital is Neustrelitz, with 5400 inhabitants. The productions, and the condition and employment of the inhabitants, are the same as in Mecklenburg-Schwerin.

MEDALLIONS. The term *medallion* is applied to those productions of the mint which, if gold, exceed the *aureus* in size; if silver, the *denarius;* and if copper, the first, or large brass. Antiquaries have long differed as to the purposes for which they were designed; they are generally, however, supposed to have been struck, like the medals of our time, to commemorate some remarkable event. Yet circumstances are not wanting to render it probable that they were intended for circulation as money. Perhaps both objects were united, at least in many instances, a large number of pieces, of a definite value, being coined in memory of a great event, and thus adapted, at the same time, for current use. Medallions are not numerous. The Greek, or those struck in the Greek provinces of the Roman empire, are more common than the Roman, but of inferior workmanship. A gold medallion exists of Augustus, and one of Domitian; but few, in any metal, are found prior to the reigns of Adrian and Antonine; those in brass are the largest, many of them being several inches in diameter. (See *Numismatics*.)

MEDALS. (See *Numismatics*.)

MEDEA; daughter of Aëtes, king of Colchis. By some, her mother is said to be Idyia, daughter of Oceanus; by others, Hecate. Mythology ascribes to her a profound knowledge of the secret virtues of vegetables, by means of which she practised witchcraft. She saved the lives of many foreigners by her prayers and the aid which she rendered them, but thereby incurred the suspicions of her father, and was thrown by him into prison, from which she escaped to the temple of the sun. Her connexion with Jason (q. v.), the leader of the Argonauts, is celebrated. For ten years she lived with him in wedlock, after having supported him in every danger, till the charms of Glauce, or Creusa, the daughter of king Creon, kindled a new passion in him, and he discarded the unhappy Medea. According to some, Jason separated from her because of the reproaches heaped on him for having a foreign sorceress for wife. Under the semblance of patient resignation, she brooded on revenge. With this purpose, she sent the bride, as a wedding gift, a garment which, when she put it on, enveloped her in a consuming flame, so that she died a death of the utmost anguish. Another account is, that she sent her rival a poisoned crown of gold by her step-sons. She reduced Creon's palace to ashes by a shower of fire, murdered her two children by Jason, and then mounted her dragon-chariot, and escaped. Some say that she went to Hercules, others to Athens, to king Ægeus, by whom she had Medos. From Athens, also, she was banished as a sorceress. She finally returned to her home, where she reinstated her father, who had been dethroned by his brother Perses, after which she died. According to later accounts, she became reconciled with Jason, and was deified by the Colchians. Medos is said to have taken possession of the kingdom of his grandfather, and to have called it, from himself, *Media*. The story of Medea has often been a subject of poetry, especially of tragic poetry. The tragedies of this name, by Æschylus and Ovid, have perished, as well as the Colchides of Sophocles. The Medeas of Euripides and Seneca are alone extant. The story has lately been made the subject of a tragedy by Grillparzer.

MEDIA; the largest and most important province of the ancient Persian empire, bounded east by Hyrcania and Parthia, south by Persis and Susiana, west by Assyria and Armenia, and north by the Caspian sea; so that it comprised the modern Iran, Aderbidshan, Ghilan, and the western half of Mazanderan. According to Hammer, it belonged to Aria, or Ariana, of the Zend, the land of the Medes, in its widest extent. This Aria is bounded by the ancient Bactria, the centre of the great national intercourse of Asia, of the religion of the Magi, and of the ancient Persian civilization. (See *Zoroaster*.) Media, on account of its mountains, was not easily accessible, was inhabited by warlike people, and, in part, well cultivated. Even before the Persian period, it was an independent kingdom. Its history begins with Dejoces, who, according to Herodotus, collected the people in villages and towns, and accustomed them to laws. He is said to have conquered Ecbatana. Ninus, the founder of the Assyrian monarchy, conquered this country. After the downfall of the Assyrian empire, a governor of the province of Media succeeded in rendering it once more independent, and it soon became the most powerful of the states which had arisen from the ruins of the Assyrian monarchy. According to tradition, as given by Herodotus, another Dejoces begins a series of Median kings at Ecbatana, which continues uninterrupted from 700 B. C. to 500 B. C. The last were Phraortes, Cyaxares and Astyages. Respecting the then existing connexion of Media with Bactria and India, nothing certain is known. Cyrus (q. v.) subjected the Medes to the Persians. This latter people had, till then, been considered by the former as of little importance, on account of their poverty. The conquered soon became the teachers of the conquerors, not only in the arts and manners of private life, but also in their public policy. After Cyrus, Media remained connected with the other parts of the Persian empire, excepting that the north-western parts, which, before the time of Cyrus, seem to have belonged to Assyria, were separated, for a time, from the Persian monarchy. When Alexander had conquered the Persian empire, he gave to Media a native governor, named Atropates, who maintained himself in the northern mountains, even after the death of Alexander, when Media had received a Macedonian governor. His posterity inherited his power, and, in spite of their dangerous neighbors, the Parthians, Armenians and Romans, maintained possession of it, partly by prudence, partly by arms. In the time of the first Roman emperors, Media was still independent; at a later period, it came under the yoke of the Parthians. Media consisted of Southern, or Proper Media, also called *Great Media*, whose capital was Ecbatana; of the country of Atropates, (Atropatene), and of the northern parts, along the shores of the Caspian sea, called *North Media*.

Median Wall, in ancient geography, also called *Wall of Semiramis* (not built, however, by Semiramis), is reported to have been 300 feet high, about 140 miles long, and 20 feet thick, in Mesopotamia, running north-west from the Tigris, about 30 miles distant from the present Bagdad; erected against the invasions of the Medians. It was built of brick and asphaltum.

Mediation, Mediator. In international politics, a power which endeavors to prevent, by peaceable interference, an approaching war, or close one which has broken out, is called a *mediator*. Mediation is essentially different from *arbitration*, which takes place if two powers submit points in dispute between them to the decision of a third power, which is to confine itself strictly to the points at issue, —a proviso which often affords a dissatisfied party a pretext for rejecting the decision.* Mediation generally takes place in consequence of a request. In 1818, Spain asked the mediation of the powers assembled at Aix-la-Chapelle in her quarrel with her American colonies, which, however, was refused, on the ground that the aid desired would amount to assistance in making a re-conquest. The Poles, in 1831, sought for the mediation of England between themselves and Russia. France has been, very often, the mediator between Russia and Turkey, or Austria and Turkey, from interested motives, to prevent Russia or Austria from becoming too powerful. Several powers may act jointly as mediators. Mediation, particularly of late, has often been performed by congresses, as, for instance, in the case of the treaty of London (July 6, 1827) for the pacification of Greece, or the pending mediation of the congress at London between Holland and Belgium. This kind of mediation, however, was introduced by a most arbitrary declaration at Aix-la-Chapelle, that the five great powers of Europe, Austria, France, Great Britain, Russia and Prussia, would be the mediators in all disputes between minor powers. Their ministers in Paris, Frankfort and Vienna were provided with the necessary authorities. This led to the adoption of the principle of *armed intervention* at Laybach and Verona. (See *Intervention.*) Napoleon took the title of mediator of Switzerland. (See *Switzerland.*) By a law of the German empire, disputes between the members were left to the decision of a third member—a proceeding called *Austrägalinstanz.* (See *German Empire.*) The same rule has been established in the Germanic confederacy.

Mediator, in theology, is an appellation which is given in a peculiar sense to Jesus Christ, the Instructer and Savior of mankind. Divines, however, have differed in their sentiments in respect to the nature and extent of this office, and the mode of its accomplishment.

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* A late decision of the king of the Netherlands, umpire between the U. States and England, in the dispute respecting the boundary line between New Brunswick and Maine, has given rise to murmurs on this ground.

Mediatisation. When the German empire, whose unity and power had been long before destroyed, was formally dissolved (in 1806), it would have been impossible to suffer such a number of small sovereignties to exist by the side of each other as remained in Suabia, Franconia, Bavaria, and on the Rhine, even after the secularizations of the ecclesiastical governments in 1803. It was a work of necessity, and of duty to the subjects, to aggregate them in larger masses; and, in the previous history of the empire, good precedents were found for changing smaller estates from immediate members of the empire to mediate, that is, to dependencies on the larger governments. The number of the estates of the empire formerly exempted in this manner was very considerable, especially in the Austrian countries. But what made this proceeding odious in 1806 was, partly, the want of a principle; for large possessions, like Fürstenberg, with 74,000 inhabitants, Leiningen, with 83,000, were mediatised, while much smaller ones retained their sovereignty; partly the manner in which the legal relations of the former sovereigns towards their new superiors were settled. The proceeding itself, however, was unavoidable, as appeared in 1815, when it was not only found impossible to restore the sovereignty of the mediatised princes, but new ones were added to the number (Salm, Ilsenberg, von der Leyen). But, by the 14th article of the German act of confederation, provision has been made to fix the legal relations of the mediatised sovereignties.

Medici. It is not uncommon for families, from the common ranks of society, to attain to great opulence by industry and good fortune. But wealth imparts influence, and this, rank and distinction. In democratic states, then, it is not wonderful, that we find families of originally little importance, after some generations, appearing among the rulers of the state, and even at the head of it. The histories of the Grecian and Italian republics are full of such examples. But, owing to the fluctuating nature of wealth and popular favor, such houses generally decline as rapidly as they rose into consequence. If, therefore, a family from the class of commoners flourishes for centuries amidst the continual vicissitudes of conflicting parties, if its influence during this time gradually becomes supreme, and it maintains this power for centuries, we can confidently conclude, that the heads of the family must have been distinguished for wisdom and good fortune. Such is the case with the family of the Medici. The Medici, when they first appeared in Florentine history, in the beginning of the fourteenth century, were already rich and important, having recently acquired affluence by commerce. Corso Donato, the head of the party of the Neri, had expelled the Bianchi from Florence, but found himself neglected by his former friends, the chiefs of the nobility; he therefore attached himself, for the purpose of forming a new party, to some wealthy families belonging to the commoners. Among these, the Medici are the first named, although, according to some, they were in favor of the recall of the banished Bianchi. However that may be, they conducted with so much sagacity, that they soon became one of those families from which the popular oligarchy of Florence was composed. They principally contributed to the elevation of Walter of Brienne, duke of Athens, to the head of the state, who, however, made use of his power to humble the ruling families, and caused Giovanni de' Medici, who had not defended Lucca against the Pisans with sufficient firmness, to be beheaded. The Medici, therefore, with some other families, entered into a conspiracy against him, which was discovered to him by Matteo di Marozzo; but, luckily for the Medici, the tyrannical duke, in a fit of caprice, to appear magnanimous, did not investigate the case. This proved his ruin; for when the dissatisfaction at last broke out into open rebellion, the Medici were among the leaders. Thenceforth we find them always in public affairs. After the banishment of the duke, the old nobility were again admitted to participate in the government, from which they had been excluded for fifty years; but abusing their new liberty, they were guilty of such violence and excesses, that Alamanno de' Medici, the oldest of the family, called the people to arms, and drove out the nobles. During the next ten years, when Florence was disturbed anew by the Ricci and Albizzi factions, and distracted by the Ammonizioni (as the exclusion of certain individuals and families from public honors under the pretence of Gibelinism, was called), the Medici joined the Ricci, which was the weaker party. A son of Alamanno, named Bartholomew, entered into a conspiracy against the Albizzi about the year 1360, but escaped, on its discovery, from the fate of his accomplices, by placing himself in time under the protection of his brother Salvestro, who was a magistrate. Salvestro himself, when gonfalonier of justice, in 1378, procured a law by which the Albizzi were humbled, and the Ammonizioni were moderated. The party of the Albizzi being afterwards wholly annihilated, and the popular party having gained the supremacy, Salvestro attained the great distinction which laid the foundation for the future influence of his house. The moderation of Salvestro and his family preserved them from falling, even when, a few years later, the party which had elevated him prepared its own ruin by its arrogance. Thus the Medici, undisturbed in their greatness and affluence, saw the Albizzi, Strozzi, Scali, Alberti, fall around them; for they did not, like the latter, aspire to the supreme power of the state. Yet they also, at least for a period, became the victims of republican party spirit. In an insurrection of the people against the principal citizens and the revived party of the Albizzi, 1393, the furious populace obliged Veri de' Medici, Salvestro's son, and at that time head of the family, to be their leader, and to compel the *signoria* to grant their demands. Veri might easily have then become the master of Florence; but he made use of his influence with the people only as a mediator, and calmed the disturbance. But the *signoria* failing to fulfil their promises to the people, he and his adherents loudly expressed their dissatisfaction. The suspicious government took advantage of some threats, uttered by a friend of the Medici, to banish all those members of the family who were lineally descended from Salvestro, with their friends. Some of these exiles, and among them Antonio, in concert with their friends in Florence, attempted, in 1397, to return and seize the government. They forced their way into the city, but found no assistance, and were obliged to take refuge in the church S. Reparata, where a part of them were killed, and a part made prisoners and executed. After the detection of another conspiracy, excited by the duke of Milan, in 1400, among the Florentine exiles in Lombardy, and in which inhabitants of Florence were to have coöperated, the Medici were again banished, with the exception of a few. But these few, who continued to enrich themselves by successful commerce, restored the distinction of their house on a firmer basis. Giovanni de' Medici was, in 1402, 1408 and 1417, member of the *signoria*, in 1414 belonged to the council of the Ten, and, finally, when the ruling aristocracy was convinced of his moderation and of his impartiality, became, in September and October, 1421, gonfalonier of justice. The people vainly expected from him the formation of an opposition party, which he was too prudent to attempt; on the other hand, he was honestly devoted to the Albizzi. He died in 1429. Of his sons, Cosimo (Cosmo) and Lorenzo, the former begins the splendid series of the celebrated Medici; the latter was the ancestor of the grand-duke of Tuscany. Cosmo had already a seat in the *signoria*, in 1416. Though he made little direct opposition to the ruling party, yet the great liberality which his immense wealth allowed him to exercise, collected a numerous party around him, which, envious of the Albizzi, neglected no means to weaken them. This does not, indeed, appear to have been effected by the instigation of Cosmo, and his party was not even called after him, but after a certain Puccio Pucci, who, with Averardo de' Medici, was most zealous to gain him partisans; yet he was considered by the Albizzi the chief of the party, and their most dangerous enemy. He was finally seized and imprisoned, without being proved guilty of any crime, except his popular affability, and succeeded only by bribing the gonfalonier Bernardo Guadagni in having the sentence of death, which was preparing for him by Rinaldo Albizzi, converted into banishment to Padua (1433). Yet his friends were so numerous, that a year after, a *signoria*, which consisted wholly of them, recalled Cosmo, and banished Rinaldo and his adherents. By this victory, the party of the Medici acquired the ascendency. Nevertheless, Cosmo scorned to use force against his enemies; but some suspected persons were banished in 1442. The worthy Neri Capponi endeavored to oppose the policy of Cosmo, who was a friend of Francesco Sforza. But Cosmo was contented with protecting himself against his enemies by the number of his friends, and was able to check the arrogance of the latter, which he most feared, by inspiring them with a dread of the former. The ruling party in Florence was accustomed to obtain for some of their number, from the people, the grant of full powers (*balia*) to appoint the magistrates for some years. Cosmo himself caused Neri to be appointed one of these commissioners, and thus attached him to his own party, which hazarded nothing in receiving the weaker one of Neri. When, after the death of Neri, the term of the *balia* was expired, he did not make use of his power to effect a prolongation of it, as heretofore some less sagacious chiefs had done, but waited quietly, until the great mass of those, who vainly expected honors from the people, but might have hopes of receiving them from him, effected the renewal of the former oligarchy for eight years, in 1458. Indeed, it was always his policy to let others work for his advantage, while he remained in apparent indifference and inactivity himself. As Puccio Pucci was formerly called the head of his party, so, at present, Cosmo ruled the republic, from 1458, through Luca Pitti, he himself remaining in the back ground. From thence he observed his friends and his enemies, and endeavored to keep the former within the bounds of moderation, which are essential to the existence of a constitutional aristocracy, and much more to that of an insecure oligarchy. He was less successful in this, in his later years, particularly on account of the imperious character of Luca Pitti. He therefore laid it down as a rule, never to distinguish himself in his mode of living by expense or by a splendor that would excite envy. His superfluous wealth he expended upon public buildings, with which he adorned Florence, and in a splendid munificence, not only towards his adherents, but especially towards artists and learned men; among whom Argyropylus, Marcilius Ficinus, &c., enjoyed a liberal share of his favors; for he himself was a cultivated and accomplished friend to science, without being a less active merchant, or a less sagacious statesman. It would have been easy for him, who in Europe was considered as the prince of Florence, to ally himself with princes; but he married his sons and his grand-daughters to the daughters and sons of Florentine citizens. With equal wisdom he managed the foreign affairs of the republic, in its difficult relations with Naples, Milan and Venice, in which his commercial connexions with all countries and his vast credit firmly supported him. (The learned Pignotti is more rigid and impartial than Roscoe in his judgment upon Cosmo.) After Cosmo had done every thing which he could to establish his house in the popular favor, he died in 1464, with anxious thoughts respecting the future; for his kinsman, the sagacious Bernardo de' Medici, who had gained so much honor in the war against Milan and Naples, and his son Giovanni, had both died before him; his other son, Piero, on account of his ill health, seemed little capable of being at the head of the state; the sons of Piero, Giuliano and Lorenzo, were still minors. Piero, in the commencement of his course, lost much of the favor which the Florentines would readily have transferred to him from his adored father, in consequence of following the evil suggestion of a false friend, Diotisalvi Neroni, who advised him, in order to restore his finances, which had suffered from the munificence of his father, to exact the payment of many sums of money, which his father had lent to citizens. The growing dislike of the people towards him on account of this measure, and also the betrothment of his son Lorenzo with Clarice (of the noble house of Orsini), were eagerly taken advantage of by Neroni and the ambitious Luca Pitti, in conjunction with the true patriot Nicolò Soderini, and Agnolo Acciajuoli, the personal enemy of the Medici, to effect his downfall. They prepared a list of names personally subscribed by the enemies of the Medici. Piero, to whom this was made known, procured a similar list of the names of his friends and partisans, which many subscribed under the influence of fear, who had already enrolled themselves among his adversaries. After unsuccessful attempts, by moderate measures, to change the government, the malecontents resolved to put Piero to death in his own house at Carreggi, and to take possession of the government with the assistance of the marquis of Ferrara. But the design was revealed to Piero, whereupon, in August, 1466, with a numerous body of armed men, he went to Florence. Guarded by these, he kept quietly in his own house. His enemies also armed themselves, but were discouraged by the defection of Luca Pitti. Piero having professed his moderation to a deputation of eminent citizens, and declared that he did not desire the renewal of the expired *balia*, the people would undertake nothing against him; his enemies therefore dispersed, and their leaders fled from Florence. The *balia* was then renewed to the party of the Medici, and they became from this time supreme. But the other members of the *balia* abused this power in the most arbitrary manner, and Piero, being almost constantly confined to his bed, was unable to prevent them; he was, therefore, on the point of recalling his banished enemies, in order, by their means, to check the violence of his friends, when death prevented him (1469). The secret enemies of the Medici, on account of the youth and inexperience of his sons, Lorenzo and Giuliano, thought the time favorable for a new attempt to overthrow that powerful house. In conjunction with pope Sextus IV and the archbishop of Pisa, Francesco Salviati, the Pazzi, the family next in consequence to the Medici, formed the plan of an assault on Lorenzo and Giuliano, which, after many disappointments, was carried into execution April 26, 1478, in the church S. Reparata. They failed, indeed, in their attempt on Lorenzo; but Giuliano was murdered. The people immediately armed themselves in the cause of the beloved Medici, his assassins were put to death, and the house of Pazzi was overthrown. Lorenzo, now the only head of his house, and more than ever confirmed in the government of the republic, ruled it in a manner worthy of his grandfather, whom he surpassed in wisdom and moderation, as in magnanimity and munificence; but particularly in his active zeal for the arts and sciences. By alliances with Venice and Milan, he protected Florence against the machinations of the pope and the king of Naples. He then made a journey to Naples, and induced the king, the bitterest enemy of himself and his country, to become his warmest friend, and an ally against the attacks of the implacable pope and the faithless Venetians. By his honorable and wise policy, he placed the balance of power in Italy on a footing, which, until his death, ensured to her full security and ample scope to extend and confirm her prosperity. Great losses induced him to give up commerce, which the Medici had always carried on, though, indeed, by agents who were frequently treacherous or inefficient. These losses had reduced him to such a want of money, that he was often compelled to borrow large sums from the public treasury; yet, when he withdrew his property from trade, he was sufficiently wealthy to purchase princely domains, and not only to adorn them with palaces of regal splendor, but also to ornament Florence with elegant edifices. In the long peace, which his wisdom procured for the republic, he entertained the Florentines with elegant and splendid festivals, himself with the society of the most distinguished literati of his age, whom (as, for instance, Demetrius Chalcondylas, Agnolo da Montepulciano, Christopher Landini, and, above all, the great John Pico of Mirandola) his fame and his invitation had attracted to Florence, and his princely munificence rewarded. He increased the Medicean library, so rich in manuscripts, founded by Cosmo in 1471. He also opened a school of the arts of design, in a palace adorned with ancient statues and excellent paintings. All, who in this age had gained a reputation in Florence for great talents, shared his patronage. Lorenzo was therefore surnamed the *Magnificent*. Honored by all the princes of Europe, beloved by his fellow-citizens, he died in 1492, and with him the glory of his country.—See Fabroni's *Vita Laur. Medicis* (Pisa, 1784, 2 vols., 4to.), and William Roscoe's *Life of Lorenzo de' Medici*. The *Opere di Lorenzo de' Medici, detto il Magnifico*, were published at Florence in 1826, in a splendid edition, at the expense of the grand-duke, Leopold II, and contain the first complete collection of his poems (4 vols., quarto). Lorenzo left three sons, Piero, married to Alfonsina Orsini; Giovanni, at the age of 14 cardinal, and afterwards pope Leo X; and Giuliano, duke of Nemours. Piero, the new head of the state, was wholly unqualified for the place. In two years, he had alienated the duke of Milan and the king of France from the republic, and, by his imprudence and weakness, but particularly by the disgraceful peace of Serezna, had made himself despised and hated by the Florentines, who would willingly have honored his great father in him. He was, in consequence, divested of the government, and banished, with his whole family. After several attempts, by fraud or force, to return, Piero lost his life (1504) in the battle of the Garigliano, being drowned in this river, where he was with the French army. In 1513, his brother, the cardinal Giovanni, by an insurrection raised by the popular preacher Hieronymus Savonarola, obtained a reëstablishment in his native city, and when he became pope, in 1514; he elevated his family again to its pristine splendor. Piero's son, Lorenzo, created by the pope duke of Urbino, was the head of the state, though always without the princely title, and with the preservation of the republican forms. He died in 1519. Julius, a natural son of the Giuliano who was murdered in 1478, ascended the papal throne, in 1523, under the title of Clement VII, and, in 1533, Catharine, Lorenzo's daughter, became the wife of Henry II, king of France; after which events, the speedy dissolution of the semblance of liberty at Florence was readily foreseen. The Florentines, indeed, seemed on the point of recovering their ancient freedom, when they banished, in 1527, the vicious Alessandro; but this was the last ebullition of republican spirit. At the persuasion of Clement VII, Charles V besieged Florence in 1531, and after its capture reinstated Alessandro, made him duke of Florence, and gave him his natural daughter, Margaret, in marriage. At first, the nation loved him for his affability; but finally, he gave himself up to a licentious course of life. He was the first independent duke of Florence. When Alexander, the last descendant of the great Cosmo, had been murdered by Lorenzo de' Medici (a lineal descendant from Cosmo's brother Lorenzo), in 1537, the Florentines made a weak attempt to reëstablish the republic; but Charles V again attacked them, and his power promoted Cosmo I (who belonged to another branch) to the dukedom of Florence. Cosmo I possessed, as did his successors, the art, but not the virtues, of the great Medici to whom he owed his power. To confirm his greatness, he made it his chief object to exterminate the Strozzi, the hereditary enemies of his house, in 1554. To protect the commerce of the Levant against the Turks, he founded a new religious order, that of St. Stephen. He was a great amateur and collector of antiquities and pictures, and founded the extensive collection of statues of celebrated men, and constantly increased the collection of statues in the garden of Lorenzo the Magnificent. The foundation of the Florentine academy, and of the academy of design, in 1562, is due to him. After he had made himself master of Sienna, with the assistance of Spain, in 1557, and by several other acquisitions had extended the dominions of Florence, he obtained from pope Pius V the title of grand-duke of Tuscany; but his son and successor, Francis, first procured, from the emperor Maximilian II, whose sister Joanna he married, the confirmation of this title, in 1575, for a large sum of money. Francis's second wife, the celebrated Venetian, Bianca Capello, was declared, by the senate of her country, daughter of the republic, in order to make her worthy of this alliance. His daughter Maria became the wife of Henry IV of France. This branch of the Medici had not, like that which became extinct with Alessandro, given up commerce; even when princes, Cosmo I, Francis, and his brother Ferdinand I (at that time cardinal), who succeeded him, likewise an ardent lover of the arts, as also Cosmo II, the son of the last (who succeeded in 1609), continued engaged in it, and Francis even continued the retail traffic, which Ferdinand gave up. Under these grand-dukes the arts and sciences flourished at Florence, and, in this circumstance, as well as in the artful policy of the government (especially in the delicate situation of affairs between France and Spain), was recognised the spirit of the great Medici of the fifteenth century. But the state of things was changed under Ferdinand II, son of Cosmo II, who, in 1621, came to the government at the age of eleven years. During his minority, the clergy, and through it the papal see, acquired a very pernicious influence in the administration, and persuaded him, contrary to the policy of his father, to throw himself into the arms of Spain and Austria—an alliance made use of by these courts to drain immense sums of money from the treasury of the Medici, which was thought to be inexhaustible. He governed 49 years, and his son, Cosmo III, austerely brought up, and destitute of all political capacity, 53 years, from 1670 to 1723—a century in which Tuscany was reduced to the most deplorable state, by an enormous national debt, and by an exhaustion of all the sources of national wealth. Fortunately for this country, John Gasto, son of Cosmo III, was the last of his family, once so glorious, but now degenerated beyond hope of recovery. He died in 1737, after an inefficient reign, and, in compliance with the terms of the peace of Vienna (1735), left his duchy to the house of Lorraine. Francis Stephen, duke of Lorraine and grand-duke of Tuscany (afterwards the emperor Francis I), made a contract with the sister of John Gasto, the widowed electress of the Palatinate, the last of the name of Medici, by which he acquired the various allodial possessions of her house, and also the celebrated works of art and antiquities collected by her ancestors. Under the 26 years' reign of his son, the wise and virtuous Leopold, Tuscany recovered from a decline that had lasted for more than a century. (See *Tuscany*, and Clayton's *Memoirs of the House of Medici.*)

Medici, Luigi, don, minister of the king of Naples, descended from the ducal house of Ottojano, was duke of Sarto, high steward of the king of Naples, and, for some time, president of the ministry. He succeeded Acton (q. v.), and rendered service, in 1805, by improving the state of the finances. During the reign of Joseph Bonaparte and Joachim Murat, he resided in England, and returned with the Bourbons to Naples, where he was minister of the police, when Murat, induced by false reports, purposely spread in order to lead him to his ruin, passed from Corsica to the Neapolitan territory. Medici ordered the coasts to be watched, and Murat was taken and shot. The minister's report on this event is contained in the papers of that time (1815). In 1818, Medici concluded a concordate with the pope. He now improved the system of coinage, &c. In 1819, the king, on his proposal, ordered "that all judges should decide causes according to the literal meaning of the laws, and, wherever this was not clear, should follow reasonable interpretations, and not the commentaries of jurisconsults; after which, the reasons of the sentence should be printed." To clear the prisons, filled with captive robbers, Medici sent 2000 criminals to Brazil, according to a treaty concluded with the court of Rio Janeiro. Yet his administration, particularly the reëstablishment of convents, in 1819, met with much censure. The people were dissatisfied with the new tax on landed property (*fundaria*). The revolution broke out at Nola, July 2, 1820. The ministry of the police had previously been given to the prince of Canosa, who, unlike Medici, united with the secret society of the *Calderari*, in order to suppress the *Carbonari*, whilst Medici had sent the most ardent members of these societies to the insane hospitals. Medici gave in his resignation, and retired to Rome, where he remained for some time after the return of the king to Naples. But when the violent measures of the prince of Canosa appeared to be ill adapted to restore order, the king, on the advice of Austria, resolved to form a new ministry (June 1822), the president of which was prince Alvaro Ruffo, and the finances were once more given to Medici: milder measures were now adopted. To cover the deficit in the revenue, a loan had been contracted with the house of Rothschild. When the king, with prince Ruffo, went to the congress of Verona, and afterwards to Vienna, Medici was appointed president of the council of ministers. He saw himself obliged to contract a new loan with the house of Rothschild, for two millions and a half pounds sterling, for which, customs and other indirect taxes were pledged. Under the reign of Francis I, Medici retained his high post. He went with his king to Madrid, and is said to have been consulted respecting the regulation of the embarrassed finances of Spain. He died in 1830.

Medicine; the science of diseases, and the art of healing or alleviating them. It is founded on the study of man's physical and moral nature, in health and in disease Created by necessity, the offspring of instinct, observation, time, and reflection, it began in ages previous to the records of history; it has struggled at all times, and continues to struggle, with favorite theories; has been influenced by all systems of philosophy and religion, by truth and superstition; and has, with the slowness which marks all the important advancements of mankind, but lately emerged from some of the prejudices of thousands of years, and will long continue subject to others. Like other sciences, medicine has gained more from the single discoveries of close observers than from centuries of theory. For the few hundreds of years in which men have begun to apply themselves more to actual observation, and the human body has been carefully studied, medicine, like all the natural sciences to which it is so near akin, has made great progress. The higher kinds of skill and knowledge, in the earlier stages of nations, are in general exclusively appropriated by the priests, and this has been the case with medicine and the other branches of natural science. The knowledge of medicine was a secret of the Egyptian priests, and, in Greece, it was carefully concealed, and transmitted from son to son, by the family of the Asclepiades, an order of priests of Æsculapius (*Asclepios*). To these belonged the great Hippocrates. (q. v.) He undertook, in the fifth century B. C., after making himself master of the medical knowledge preserved in the temples at Cos and Cnidos, to become the founder of scientific medicine, by separating the results of actual experience from vain speculation. His doctrine may be called the *empiric rationalism*; and, numerous as are the systems that have flourished since, in ancient and modern times, mankind has always returned to his principle of making observation the only rule in the treatment of diseases. The doctrine of Hippocrates was blended, by his immediate successors, with the Platonic philosophy, whereby was formed the (so called) *ancient dogmatic system*. In Alexandria, which was, from 300 B. C., the seat of learning, medicine was one of the branches studied, but soon degenerated into mere dialectics and book learning. Hence we find it soon followed by the empiric school (286 B. C.), the methodic school (100 B. C.), the pneumatic school (68 B. C.), and, at length, by the eclectic school (81 A. D.), which took from all the others. A philosophical and great mind was required to put an end to so confused a state of medical science, and such a mind appeared in Galen (q. v.) of Pergamos. His system acquired an almost undisputed preëminence during the middle ages, and down to the sixteenth century. For some time (in the seventh century), the intellectual Arabians cultivated the sciences, and with them medicine. They also founded their medicine on that of Galen, but fashioned the science according to their notions, and left it not unimproved in respect of practical application and pharmacology. Arabian medicine reached its highest point under Avicenna (born 980), who, for some time, was esteemed even higher than Galen; the opinion of the latter's superiority, however, eventually revived. The Western medicine begins with the medical school of Salerno, perhaps existing as early as in the ninth century, but well established in 1143 and 1238, where medicine was taught according to the principles of the Greeks. During the rest of the middle ages, there existed a Galeno-Arabian science of medicine, mostly fostered by ignorant monks, and only gradually struggling on, after suffering, perhaps, more than any other science, from every superstition and every misconception of nature. In the fourteenth century, anatomy was improved by Mondini; later, the knowledge of medicaments, by the discovery of new and distant countries, practical medicine, by the appearance of new diseases, and not a little by the frightful syphilis. The love of Greek literature was revived by the scholars driven from Greece by the conquest of Constantinople (in 1453), and men having begun to read the Greek medical writers, especially Hippocrates, in the original language, a more scientific and liberal spirit of investigation took the place of slavish adherence to antiquated prejudice. Thus the fall of the Galenic system was prepared, which was completed in the sixteenth century, and forms the essential part of the reformation produced by Theophrastus Paracelsus (1526). The chemico-theosophical system of this enthusiast was refined and arranged by J. B. von Helmont (who died in 1644), until, deprived of its theosophical character, it passed over into the chemico-material system of Francis Sylvius (who died in 1672), and, at length, into the psychiatric system (from ιατρικη, cure) of Stahl (who died in 1734). Yet, soon after Harvey's (q. v.) great discovery of the circulation of the blood (in 1619), the iatromathematical doctrine, under Alphonso Borrelli (who died in 1679), developed itself, which finally took the shape of the dynamic system of Fr. Hoffmann (died 1742), from which the dynamic schools of modern times proceeded, for the history of which we must refer the reader to the works mentioned below. For the newest systems, as the homœopathic system of Hahnemann (see *Homœopathy*, and *Hahnemann*), or that of M. Broussais, a Frenchman, who strives to trace all diseases to inflammation of the bowels, we must refer to the publications of the authors, and to the medical periodicals.—See Kurt Sprengel's *Geschichte der Arzneikunde* (third edition, Halle, fifth vol., 1827; translated into French, Paris, 1816); J. F. K. Hecker's *Geschichte der Heilkunde* (Berlin, 1822, vol. 1); Hamilton's *History of Medicine* (London, 1831, 2 vols., 8vo., &c.) The various medical sciences, or those closely connected with them, and more or less requisite for a thorough knowledge of medicine, may be thus enumerated:—the whole range of natural sciences, as zoölogy (including comparative anatomy and physiology, mineralogy, geology, botany, natural philosophy, chemistry, &c.: psychology, which teaches the various phenomena of soul and mind: anatomy, which teaches the form and situation of the organs by the examination of dead bodies, and is divided into osteology, treating of the bones; syndesmology, of the ligaments; myology, of the muscles; splanchnology, of the intestines; angiology, of the vessels; neurology, of the nerves; and adenology, of the glands: organic physics, treating of the mechanical operations of the human body, the power, gravity, &c., of its parts: physiology, which treats of all the phenomena of life in connexion.* Such is the basis of all those branches of science which may be more particularly called *medical*, and which we will now enumerate. The science of health, that is, of that in which it consists, its conditions, and its signs, is called *hygiene*, or, as far as it relates to the regulation of the diet, *diætetics*. *Pathology*, on the other hand, is the science of disease, of that in which it consists, its origin, &c. *Nosology* treats of the various sorts of diseases, their origin and symptoms, and strives to arrange diseases into one whole. *Pathological anatomy* teaches the mechanical alterations and changes of structure. *Semiotics* teaches to infer from the various symptoms, the nature of the disease; *diagnostics*, to distinguish the symptoms of different diseases; and *prognostics*, to infer, from the past and present state of a disease, its future course. *Therapeutics* is the science of the cure of diseases, often divided into *general*, treating of the subject of cure in general, its character, &c., and *special*, of the cures of the particular diseases. *Surgery* treats of mechanical injuries, and the mode of relieving diseases and derangements by mechanical means. *Obstetrics* treats of the modes of facilitating delivery. *Materia medica* is the science of medicines, their external appearance, history, and effects on the human organization. *Pharmacy* teaches how to preserve drugs, &c., and to mix medicines. *Clinics* (q. v.), or medical practice, applies the results of all these sciences to real cases. We should mention, in this connexion, the history and literature of medicine, the history of diseases, a very interesting branch, political medicine, which is divided into medical police and forensic medicine, that branch which enables the physician to give to courts and other legal authorities proper explanations in regard to personal injuries, particular appearances of the body, &c., as whether a wound was mortal, how inflicted, whether a child was dead before born, &c. In many countries, physicians are appointed by the government for this purpose. We must lastly mention *midwifery*, as taught, in many countries, to women, who make a regular study and business of it. A student of medicine ought to be well versed in the two learned languages, and cannot dispense with a respectable knowledge of English, French, German and Italian. Among the works which treat of medicine at large are *Dictionnaire des Sciences Médicales, par une Société de Médecins et Chirurgiens* (Paris, Panckoucke, containing 60 vols., 1812 to 1822), and *Journal complémentaire du Dict. des Sciences Med.* (from 1818 to 1824, 17 vols., still continued); *Encyklop. Wörterbuch der Medicin. Wissenschaften* (edited by the professors of the medical faculty at Berlin—Gräfe, Hufeland, Link, Rudolphi, von Siebold, Berlin, vol. i, 1827); also Good's Book of Medicine.—*Medical Geography* is geography applied to medicine, treating all the subjects of geography which have any influence upon the health, the bodily structure, activity of mind, and the diseases of men. It is a science of great interest.—See *Geographical Nosology* (in German), Stuttgart, 1823, by Schnurrer.—*Medical Topography* is the description of single places or tracts of country as to the circumstances which make them interesting in a medical point of view—the winds, rivers, springs, mountains, the sea, woods, plains, structure of the houses, way of living of the people, their amusements and customs; in short, every thing which affects the health of the inhabitants. Geographical situation, elevation, &c., belong to a complete medical topography. (See Metzler's *Guide for the drawing up of Medical Topographies*, in German.)

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* Some add here, anthropochemie or the chemistry of the human body, the chemical composition of all its parts—a most important branch, but usually treated under general chemistry.

MEDIETAS LINGUÆ; a jury or inquest, whereof the one half consists of denizens, the other strangers, in pleas wherein the one party is a stranger.

MEDINA, or MEDINA EL NEBI (the city of the prophet); before the days of Mohammed, *Jathreb*, anciently *Iatrippa*; a city of Arabia, in Hedsjas, 70 miles E. of Jambo, its port on the Red sea, 180 N. of Mecca; lon. 40° 10′ E.; lat. 25° 13′ N.; population, about 8000. It is regarded by Mohammedans as sacred, from its containing the tomb of Mohammed. Most of the houses are poorly built, and the place is of no importance, except from its containing the sepulchre of Mohammed. This sepulchre is held in high veneration by Mohammedans, yet the visiting it is not considered necessary or highly meritorious, and Medina is much less visited by pilgrims than Mecca. Neither the tomb nor the mosque in which it is enclosed, is distinguished by any magnificence; but it was remarkable for an immense treasure of pearls, precious stones, &c., accumulated for ages by the contributions of rich Mohammedans, until it was pillaged by the Wahabees, a few years since. (See *Mohammed.*)

MEDINA SIDONIA, Alfonso Perez Guzman, duke of; admiral of the armada. (q. v.) Philip II received him, after his disaster, with unexpected favor. Medina died in 1615.

MEDITERRANEAN SEA (*Nostrum Mare, Internum Mare*, with the Romans); the large mass of waters between Europe, Asia and Africa, which receives its name from its inland position, communicating with the great ocean only by the straits of Gibraltar. (q. v.) Its northern shore is irregular, forming large gulfs, which have received separate names; between the western coast of Italy and the islands of Corsica and Sardinia, it is called the *Tuscan*, or *Tyrrhenian sea* (*Mare Inferum*); between Italy and Illyria and Dalmatia, the *Adriatic*, or *Gulf of Venice*; farther south, to the west of Greece, the

Ionian sea (the two latter formed the *Mare Superum* of the Romans); to the north-east of Greece, between Turkey in Europe and Natolia (Asia Minor), the *Archipelago*, or *Ægean sea*. Its southern shore is less indented. It receives the waters of the Black sea, by a current which sets constantly through the Dardanelles, and thus mingles the waters of the Danube, the Po, and the Nile, with those of the Dnieper and the Ebro. Its length from east to west is about 2000 miles; its general breadth varies from 7—800 to 4—500 miles; between Genoa and Biserta it is about 375 miles; between the southern part of Italy and cape Bon, not quite 200 miles. The principal islands of the Mediterranean are the Balearic isles, Corsica, Sardinia, Sicily, Elba, the Lipari islands, Malta, the Ionian isles, Candia (Crete) and Cyprus. (*See these articles.*) The winds are irregular, the tides variable and slight, rarely exceeding two feet of rise and fall, and the sea is generally short and rough. A strong central current sets into the Atlantic through the straits of Gibraltar; on each shore are superficial counter currents setting from the ocean into the sea; but a rapid under current sets out. In a commercial point of view, the Mediterranean is of the greatest interest; its shores contain numerous celebrated ports, and its waters are covered with the ships of all the western nations. The different maritime powers maintain a naval force in the sea, which till lately has been infested with pirates. Its coasts were the seats of some of the earliest civilized nations, the Egyptians, Phœnicians, Carthaginians, Greeks and Romans.—See Steel's *Chart of the Mediterranean* (London, 1823).

Mediterranean Pass. In the treaties between England and the Barbary states, it used to be agreed, that the subjects of the former should pass the seas unmolested by the cruisers of those states; and, for better ascertaining what ships and vessels belonged to British subjects, it was provided, that they should produce a *pass*, under the hand and seal of the lord high admiral, or the lords commissioners of the admiralty. The passes were made out at the admiralty, containing a very few words, written on parchment, with ornaments at the top, through which a scolloped indenture was made; the scolloped tops were sent to Barbary, and being put in possession of their cruisers, the commanders were instructed to suffer all persons to pass who had passes that would fit these scolloped tops.

MEDIUM (Latin, *middle* or *mean*), in science; the space or substance through which a body moves or acts. Thus air is the medium through which sound is transmitted, light passes, &c. A *transparent medium* is that which allows the free passage of rays of light; a *refracting medium* is one which turns them aside in their course.—*Medium*, in logic. (See *Syllogism.*)

MEDIUM, CIRCULATING. (See *Circulating Medium.*)

MEDLAR (*mespilus Germanica*); a small European tree, allied to and somewhat resembling the quince, and belonging to the natural family *rosaceæ*. The flowers are moderately large, white, and solitary at the extremities of the branches; the calyx and peduncles are cottony; the fruit, in the cultivated varieties, is large, and, before it is perfectly ripe, has an excessively austere and astringent taste. The medlars do not ripen naturally on the tree, but are collected in the autumn, and spread upon straw till they become soft, and approach the state of decomposition. They have now a sweet, vinous flavor, which, however, is not to the taste of most people.

MEDOC; formerly a country of France, in the western part of Guienne, between the Garonne and the sea, in the present department of the Gironde. A great part of it is covered with woods and marshes, but, along the Garonne, the soil is fertile, and yields excellent wines. (See *Bordelais Wines.*)

MEDULLA, in anatomy; the fat substance which fills the cavity of a long bone. (See *Bones*, and *Marrow.*)

Medulla, in vegetable physiology, the pith of plants, is lodged in the centre or heart of the vegetable body. In the parts most endued with life, like the root, or especially young growing stems or branches, the medulla is usually of a pulpy substance, but tolerably firm, though rather brittle. Its color is pale green, or yellowish, with a watery transparency, the substance being very juicy. Its juices partake but little, or not at all, of the peculiar flavor of the plant, they being more of the nature of sap. In branches or stems more advanced in growth, the medulla is found of a drier, more white, and evidently cellular texture. In this state, it is well known in the full grown branches of elder, the stems of rushes, &c. In these, it is dry, highly cellular, snow white, extremely light and compressible, though but slightly elastic. In the greater number of plants, no vessels are perceptible in the pith, but in some, entire vessels, conveying proper juice, are present, as in the gum elastic fig-tree, the proper juice of which is seen exuding from different points of the pith, in a horizontal section of the stem. Little is yet known, with certainty, concerning the functions of the pith. It appears, on the whole, to be a mere reïteration of the cellular envelope, and subservient to the vessels which surround, and occasionally pass through it.

Medusa. (See *Gorgons.*)

Meerman, John, a Dutch scholar and statesman, born at the Hague, in 1753, was the only son of Gerard Meerman, known as the author of a *Thesaurus Juris civilis et canonici*, and *Origines Typographicæ*, and who had been created baron of the German empire. The son received his early education at the Hague and at Rotterdam, and, while hardly ten years old, translated and published, without the knowledge of his father, Molière's *Mariage Forcé*. He then studied at Leyden, at Leipsic under Ernesti, and at Göttingen under Heyne. After travelling through England, Italy and France, he took the degree of doctor of laws, at Leyden. The number of his writings, on different subjects, proves his extensive knowledge, and his zeal for virtue and piety. In 1787, in company with his wife, he visited England, Scotland, and Ireland, Germany, Italy, and Northern Europe, and published full and accurate accounts of his travels, in 11 volumes. His time and labors were also employed in the service of the state, the church, and literary institutions. Under the reign of Louis Bonaparte, he was director of the fine arts and of public instruction in the kingdom of Holland. Some years before his death, the dignity of senator of France was conferred on him, and he was called to Paris. After the restoration, he returned to his country, and died in 1816. Besides his Travels, his History of William, count of Holland, and an edition, with notes, of the *Histoire des Voyages faits par l'Empereur Charles V, by J. Vandenesse*, deserve mention. As director of the arts and sciences, he also rendered important assistance in the preparation of the *Jaarbœken van Wetenschappen en Kunsten in het Konigryk Holland over de Jaren* 1806—7. His widow, an esteemed poetess, has written his life. His valuable library, the catalogue of which is a literary curiosity, was sold by auction, at the Hague, in 1824, and brought 171,000 Dutch guilders, 32,000 of which were paid for the manuscripts. The prices have been printed.

Meerschaum. (See *Magnesite.*)

Megæra; one of the Furies. (See *Eumenides.*)

Magalony. (See *Megatherium.*)

Megalopolis (i. e. *large city*); a city of Arcadia, one of the largest cities of Greece, on the Helisson, containing many temples, a stoa, &c. The theatre of Megalopolis was the largest in Greece. The city was built at the suggestion of Epaminondas, after the victory of the Thebans at Leuctra, about 368 B. C., as a city of the Bœotian league, and was peopled from 38 cities. It is, at present, the inconsiderable place Sinano. Philopœmen, Polybius, and other distinguished men, were born here.

Megalosaurus (Greek, *giant lizard*); an extinct species of lizard, of an enormous size, which, according to Cuvier (*Recherches sur les Ossements Fossiles*, vol. ii. part 2, p. 343), would be as large as a whale, if we assign to it the proportions which its characters indicate. It was discovered in England, by Mr. Buckland, and has also been found in France and Germany.

Megara; a daughter of Creon, king of Thebes, given in marriage to Hercules, because he had delivered the Thebans from the tyranny of the Orchomenians. When Hercules went to hell, by order of Eurystheus, violence was offered to Megara, by Lycus, a Theban exile, and she would have yielded to her ravisher, had not Hercules returned that moment and punished him with death. This murder displeased Juno, and she rendered Hercules delirious, so that he killed Megara and the three children he had by her, in a fit of madness, thinking them to be wild beasts. (See *Hercules.*) Some say that Megara did not perish by the hand of her husband, but that he afterwards married her to his friend Iolas.

Megara. (See *Megaris.*)

Megaris, a small state of ancient Greece, west of Attica, occupied the upper and wider part of the isthmus of Corinth. The capital city, Megara, was rendered illustrious, not only by the firmness with which it maintained its independence, but also by a school of philosophy, founded by one of its citizens, Euclid (q. v.), a disciple of Socrates. Pausanias (i, 40—44) enumerates its many splendid public buildings.—See Reinganum's *Das alte Megaris* (Berlin, 1825).

Megatherium, or Giant Sloth; an extinct genus of the sloth family, of which fossil remains have been found only in

America. Two species have been discovered, the *M. Cuvieri* and the *M. Jeffersonii;* the latter was first described by president Jefferson, under the name of *megalonyx*, or *great claw* (Transactions of the Am. Phil. Soc., iv. 246). The megatherium unites some of the generic character of the armadilloes with some of those of the sloth; its size must have been equal to that of the rhinoceros. Three specimens of the first species have been discovered in South America, and one in Georgia. The only fragments of the second species hitherto discovered, were found in Green Briar county, Va., in a saltpetre cave. (See Godman's *Am. Nat. History*, vol. ii, 173—201.)

Megrim; a species of headache; a pain generally affecting one side of the head, towards the eye, or temple, and arising, sometimes from the state of the stomach, sometimes from rheumatic and gouty affections. In French it is called *migraine*, derived from *hemicrania*, from the Greek ἡμι (signifying, in compound words, *half*) and κρανιον (the *skull*). It affects chiefly persons of weak nerves.

Mehemed Ali Pacha. (See *Mohammed, Viceroy of Egypt.*)

Méhul, Stephen Henry, a celebrated musical composer, and member of the institute of France, born at Givet, in 1763, received his first lessons from a blind organist at his native place, and became such a proficient that, at the age of 12, he was appointed joint organist to the abbey of Valledieu. The desire of improving his talents attracted him to Paris in 1779. He there studied under Edelmann, and, afterwards, under Gluck; and, after the departure of the latter for Vienna, Méhul presented to the royal academy of music the opera of Cora and Alonzo; but his Euphrosine and Coradin was first performed at the comic opera, in 1790. This was followed, at different periods, by Stratonice, Irato, Joseph, and many other operas, besides the ballets of the Judgment of Paris, Dansomanie, and Perseus and Andromeda. Méhul was one of the three inspectors of instruction at the conservatory of music, from its creation, in 1795, till its suppression, in 1815. He was then appointed superintendent of music at the king's chapel, and professor of composition at the royal school of music. He was chosen a member of the institute in 1796, and of the academy of fine arts in 1816, and was also a knight of the legion of honor. He died at Paris, 1817. Méhul read before the institute two reports *Sur l'Etat Actuel de la Musique en France*, and *Sur les Travaux des Elèves du Conservatoire à Rome.*

Meibom, John Henry (in Latin, *Meibomius*), a celebrated physician, was a native of Helmstädt, where he was born in 1590. After travelling in Italy, and taking his doctor's degree at Basil, he returned home, and occupied a medical chair in the university of Helmstädt. In 1626, he was appointed physician of Lubeck, where he died, in 1655. His works are *Aurelii Cassiodori Formula Comitis Archiatrorum* (1668, 4to.); *De Usu Flagrorum in Re medica et venerea; Jusjurandum Hippocratis, Gr. et Lat.*, with commentaries relative to the history of Hippocrates, his disciples, &c. After his death appeared his treatise *De Cerevisiis, Potibusque et Ebriaminibus extra Vinum aliis.*—His son, *Henry Meibom*, also a physician, was born at Lubeck in 1638, and became professor of medicine in the university of Helmstädt. In 1678, he was made professor of poetry and history. He was the author of numerous medical and anatomical dissertations, and distinguished himself by his investigation of the sebaceous glands and ducts in the eyelids, the valves of the veins, and the papillæ of the tongue. His principal historical publication, *Rerum Germanicarum Tomi tres*, is a collection of writers on German history. He also wrote many pieces concerning the dukes of Brunswick and Lunenberg, and, in 1687, he published *Ad Saxoniæ inferioris Historiam Introductio.* Henry Meibom died in 1700.

Meibómius, Marcus, a learned philologist, born at Tönningen, in the duchy of Holstein, in 1630. Settling at Stockholm, he acquired the favor of queen Christina, whom he inspired with much of the same enthusiasm, with respect to the ancients, which possessed himself. Having prevailed upon his royal mistress to be present at a concert, which he proposed to conduct entirely upon the plan of the ancient Greeks, and at which professor Naudäus was to dance a Greek dance, the ridicule of some of the courtiers at the absurdity of the performance, excited his anger so violently, that, forgetful of the presence of the sovereign, he struck M. Bourdelot, a physician, who, as he fancied, encouraged it, a violent blow in the face. This indiscretion induced him to quit Sweden for Denmark, where he obtained a professorship in the college established for the education of the young nobility at Sora, was eventually advanced to the rank of a royal counsellor, and made president of the customs. His inattention to the duties of his post soon caused his removal, on which he repaired to Amsterdam, and became historical professor there, but lost this appointment, also, by his petulance in refusing to give lessons to the son of one of the principal burgomasters. After visiting France and England, Meibomius returned to Amsterdam, and died there, in 1711. His principal work is an edition of the seven Greek musical writers, Aristoxenus, Euclid, Nicomachus, Alypius, Gaudentius, Bacchius, and Aristides Quintilianus, with an appendix, containing the *De Musica* of Martianus Felix. His other writings are Dialogues on Proportions, On the Construction of the Trireme Galleys of the Ancients, and an edition of *Diogenes Laertius* (2 vols., 4to.).

Meinau; a charming island in the beautiful lake of Constance, belonging to Constance, with 50 inhabitants and an ancient castle. It is much resorted to by travellers in Switzerland.

Meiners, Christopher, born at Ottendorf, kingdom of Hanover, in 1747, studied at Göttingen from 1767, and afterwards became one of the most valuable teachers there. His works are very numerous, on various subjects, and of unequal merit. As an academical teacher, his activity in organizing and promoting the prosperity of his university was untiring, and it is much to be regretted that his history of the university was left incomplete. His favorite study was the history of human civilization, and particularly of religion, to which some of his earliest writings, among them his *Historia Doctrinæ de Deo vero*, relate. His latest work on this subject, *Allgemeine kritische Geschichte der Religion* (Hanover, 1806, 2 vols.), is, however, more defective in acuteness of criticism and clearness of arrangement than his previous writings. Some of his earlier treatises bear the impress of a judicious, calm and independent thinker. From his writings on the middle ages, and particularly from his learned lives of the restorers of learning in the 15th and 16th centuries, a new Bayle may find materials for attack and defence. A French translation of his History of the Origin, Progress and Decline of Learning in Greece and Rome procured his election into the national institute. He died in 1810.

Meiningen, Saxe (in German, *Sachsen-Meiningen-Hildburghausen*); a duchy in the German confederation, belonging to the ducal house of Saxe-Meiningen, of the Gotha branch of the Ernestine line. (See *Saxony*.) The population of the duchy is 130,500, on an area of 870 square miles, about one half of which was acquired in 1826, by the extinction of the male Saxe-Gotha line. The duke, in conjunction with the other princes of the Saxon Ernestine line, has the 12th vote in the diet, and has by himself one vote in the *plenum*. The religion is Lutheran. In 1824, a new constitution was granted by the duke to the part of the present duchy then under his government, admitting the peasants to the ducal diet as a third estate. The contingent to the army of the confederacy is 1150 men; income, 750,000 guilders; debt, 2,500,000. The capital is Meiningen, with 4500 inhabitants, containing a large and handsome ducal palace, with a library of 24,000 volumes and the state archives. (See *Germany*.) Long. 10° 24′ E.; lat. 50° 35′ N.

Meionite. (See *Scapolite*.)

Meissen, the oldest city in the kingdom of Saxony, was built by the emperor Henry I, in 922, as a bulwark against the incursions of the Sclavonians. It lies on the left bank of the Elbe; population, 4100. In the vicinity is a school, established by the elector Maurice, in 1543, in the building of the ancient Afra monastery. Lon. 13° 27′ E.; lat. 51° 19′ N. The cathedral, an old monument of German art, is a remarkable building. The porcelain manufacture has been carried on here since 1710.

Meissner, Augustus Gottlieb, born at Bautzen, in 1753, studied law and the belles-lettres at Leipsic and Wittenberg from 1773 to '76, and died at Fulda, where he was director of the high seminaries of education, in 1807. He was also, for some time, professor of æsthetics and classical literature at Prague. His works were, at one period, very popular in Germany. A glowing imagination, an easy style, grace, wit, and a brilliant manner, united with a delicate tone of gallantry, were the causes of his success. His principal productions are comic operas, in the French style; Sketches, a miscellaneous collection of anecdotes, tales, &c.; several historical romances, as Alcibiades, Bianca Capello, &c. He also translated Hume's History of England.

Mela, Pomponius; a geographer, who flourished during the first century of the Christian era. Little more is known of him than that he was a native of Spain, and the author of a treatise, in three books, in the Latin language, *De Situ Orbis*, containing a concise view of the state of the world, so far as it was known to the ancient Romans. Among the latest and best editions of this work are that of

Abr. Gronovius, (Lugd. Bat., 1782, 8vo.), and the very complete one of C. H. Tzschuckius (Leipsic, 1807, 7 vols., 8vo.), and the more compendious one by Weichert (Leipsic, 1816).

Melampus; the son of Amythaon and Idomenea, and brother to Bias. Fable relates many wonderful things of his skill in the healing and prophetic arts. Two serpents which, when a youth, he had taken under his protection and brought up, having licked his ears while he was sleeping, he found that they were opened in such a manner that he was able to understand the voices of birds and insects, and could reveal to mankind every thing that these voices indicated concerning the future. Bias fell in love with the fair Pero, daughter of Neleus, king of Pylos, the uncle of the two brothers, but he required, as a nuptial present for his daughter, the herd of oxen belonging to Iphiclus, a Thessalian prince. Melampus undertook to steal the herd for his brother, but was detected and imprisoned. He, however, succeeded, by his prophetic art, in gaining the favor of Iphiclus, who gave him his liberty, and sent the oxen, as a present, to Bias. Melampus married Iphianassa, the daughter of Prœtus, king of Argos, and received with her, as a dowry, a third part of the kingdom. The time in which he lived is unknown; he is generally considered, however, as having been a wise man, who was well skilled in all the ancient mythology, and who introduced the worship of several of the gods, together with the Eleusinian mysteries, into Greece, on which account he received divine honors.

Melancholy. (See *Mental Derangement.*)

Melanchthon, Philip, Luther's fellow laborer in the reformation, was born Feb. 16, 1497, at Bretten, in the palatinate of the Rhine. His father, George Schwartzerd, was keeper of the armory of the count palatine, and died in 1507, and his mother, Barbara, was a near relative of the learned Reuchlin. He was distinguished, at an early age, by his intellectual endowments. His rapid progress in the ancient languages, during his boyhood, made him a peculiar favorite with Reuchlin. At his advice, he changed his name, according to the custom of the learned at that time, from Schwartzerd (Blackearth), into the Greek name Melanchthon, of the same signification, and, in 1510, went to the university of Heidelberg. Here he was preëminent in philological and philosophical studies, so that, in the next year, he was deemed qualified for the degree of bachelor of philosophy, and was made instructer of some young counts. But as this university denied him the dignity of master, on account of his youth, he went to Tübingen, in 1512, where, in addition to his former studies, he devoted himself particularly to theology, and, in 1514, after obtaining the degree of master, delivered lectures on the Greek and Latin authors. His profound knowledge is proved by a Greek grammar, which he published about this time. The ability of his lectures soon gained him universal esteem, and the great Erasmus himself gave him, in 1518, the praise of uncommon research, correct knowledge of classical antiquity, and of an eloquent style. Tübingen had to lament the loss of its chief ornament, when Melanchthon, being invited, on Reuchlin's recommendation, to Wittenberg, appeared, in 1518, at this university, in his 22d year, as professor of the Greek language and literature. His enlightened mind soon decided him in favor of the cause of evangelical truth; and his judgment, ripened by classical study, his acumen as a philosopher and critic, the uncommon distinctness and order of his ideas, which spread light and grace over whatever he discussed, the caution with which he advanced from doubt to certainty, and the steadfast zeal with which he held and defended the truth when found,—this combination of great qualities and merits, at all times rare, contributed greatly to the progress and success of the reformation, in connexion with Luther's activity, spirit and enterprise. Melanchthon's superiority as a scholar, his mild, amiable character, the moderation and candor with which he treated the opposite party, made him peculiarly suitable for a mediator. No one knew better than he how to soften the rigor of Luther, and to recommend the new doctrines to those who were prepossessed against them. His *Loci theologici*, which appeared first in 1521, opened the path to an exposition of the Christian creed, at the same time scientific and intelligible, and became the model to all Protestant writers of dogmatics. He urged decidedly, in 1529, the protest against the resolves of the diet of Spire, which gave his party its name. He drew up, in 1530, the celebrated Confession of Augsburg. This and the apology for it, which he composed soon after, carried the reputation of his name through all Europe. Francis I invited him to France, in 1535, with a view to a pacific conference with the doctors of the Sorbonne, and he soon after received a similar invitation to England. Political reasons prevented him from accepting either of the invitations. He went to Worms in 1541, and, soon after, to Ratisbon, to defend the cause of the Protestants, in the conferences commenced there with the Catholics. But, unfortunately, the wisdom and moderation, which he there manifested, failed, on account of the opposition of the papal legate, to produce the peace which he so earnestly desired; and while the reasonable part of the Catholics learned, on this occasion, to respect him more highly, he had to endure, from his own party, bitter reproaches, for the steps for effecting a compromise, upon which he had ventured after mature deliberation. The same thing happened to him, when, having been invited to Bonn, in 1543, by the elector Hermann of Cologne, he tried to introduce the elector's plans of reformation in a conciliatory spirit towards the Catholics. Meanwhile, neither Luther, nor any other of his friends, who knew his noble heart and upright piety, ever entertained a doubt of the purity of his intentions, or his fidelity to the gospel. Much as Melanchthon had to suffer from Luther's vehemence, the friendship of these two noble spirited men, agreeing in sentiment and belief, remained unbroken till Luther's death, whom Melanchthon lamented with the feelings of a son. A great part of the confidence which Luther had enjoyed, now fell to him. Germany had already called him her teacher, and Wittenberg revered in him its only support, and the restorer of its university, after the Smalcaldic war, during which he fled hither and thither, and spent some time in Weimar. The new elector, Maurice, also treated him with distinction, and did nothing in religious matters without his advice. But some theologians, who would fain have been the sole heirs of Luther's glory, could not forgive him, that love to Wittenberg had induced him to submit to this prince, who had rendered himself suspected by the whole Lutheran church, and that the Protestants nevertheless persisted in regarding him as one of the pillars of their faith. They attacked his dogmas, and raised suspicions of his orthodoxy. Melanchthon had indeed shown, in his negotiations with the Catholics, that many an ancient usage, and even a conditional acknowledgment of the papal authority, did not seem to him so dangerous as to Luther. Moreover, the gradual approach of his views (respecting the presence of Christ in the supper) to the Swiss reformers, was known, and the alteration which he had, in consequence, made in the article of the Augsburg confession concerning the supper, was censured by friend and foe. He also explained the doctrine of justification more definitely, and, according to his convictions, more scripturally, both in the later editions of his *Loci theologici*, and in other public writings, and explicitly avowed his deviation from the Augustine system, by the assertion that the free will of man must and could coöperate in his improvement,—as all will perceive who read his works with attention. His habit of continually advancing in his researches, and correcting his opinions, had, unquestionably, a greater share in this change than his natural timidity and love of peace; although, from the last cause, he often used milder language than was agreeable to the rigid Lutherans; but that from fear of man, or a weak spirit of compliance, he ever yielded, in any essential point of evangelical truth, cannot be maintained. The introduction of the Augsburg Interim into Saxony, in which, after long deliberation, Melanchthon acquiesced in 1549, under conditions which averted the danger of a relapse into ancient abuses, seemed, to the more zealous, the most fitting occasion of assailing him. The vexatious disputes respecting the greater or less importance of indifferent matters, considered in religious ceremonies, in which he was involved by Flacius; the complaints which Osiander urged against him, in 1557, on account of his doctrine of justification; and, finally, the controversies respecting the coöperation of free will in man's improvement, in which Flacius engaged him shortly before his death, brought great trouble on his overlabored and sensitive spirit. The investigation of his orthodoxy, which was instituted at Naumberg, in 1554, resulted in his entire justification; but the reconciliation which took place there with his enemies, was, nevertheless, merely apparent; and their opposition frustrated the last attempt, which he made in 1557, at a convention at Worms, in the name of his party, to produce a compromise with the Catholics. The unity of the church was, therefore, Melanchthon's last wish, when he died at Wittenberg, April 19, 1560, 63 years of age. A son survived him, who inherited the virtues but not the genius of his father, and a daughter, married in Wittenberg. His eldest daughter died in 1547; his wife, in 1557. The over-anxious mind of this good and amiable woman had often saddened his domestic peace; but he was no where more amiable than in the bosom of his family. Modesty and humility were exhibited in his bodily appearance. No one, who saw him for the first time, would have recognised the great reformer, in his almost diminutive figure, which always continued meagre, from his abstemiousness and industry. But his high, arched and open forehead, and his bright, handsome eyes, announced the energetic, lively mind, which this slight covering enclosed, and which lighted up his countenance when he spoke. In his conversation, pleasantries were intermingled with the most sagacious remarks, and no one left him without having been instructed and pleased. He loved to see society at his table, and was so liberal towards the needy, that he sometimes involved himself in embarrassments. His ready benevolence, which was the fundamental trait of his character, embraced all who approached him. Open and unsuspicious, he always spoke from the heart; piety, a dignified simplicity, and innocence of manners, generosity and candor, were to him so natural, that it was difficult for him to ascribe opposite qualities to any man; often deceived and abused, he was long in learning the arts and ignoble passions which so often stood in the way of his best intentions. But this unsuspecting, benevolent character, gained him the devoted love of his disciples. From all the countries of Europe, students flocked to Wittenberg, in order to assemble around him; and the spirit of profound and impartial investigation which he inculcated, had a beneficial influence long after his death; and his exertions to promote education in general are never to be forgotten. If, therefore, stronger energies and greater deeds must be allowed to other distinguished men of his age, he will always be considered the most amiable, pure and learned.

Melanges (French, signifying *miscellanies*); particularly used in French literature on the titles of miscellaneous works, as *Melanges tirés d'une grande Bibliothèque* (70 vols., Paris, 1779—1788).

Melanite. (See *Garnet.*)

Melas (Greek, *black*); a word which, entire or abbreviated, appears in many compound words used in English, as *melancholy*; chiefly, however, scientific terms, botanical, zoölogical, mineralogical and medical names.

Melas; an Austrian general, who, in 1793 and 1794, was employed as major-general, and then as lieutenant field-marshal on the Sambre, and in the country of Treves. In 1795, he was removed to the army of the Rhine, and, in March, 1796, to that of Italy, which he commanded for a short time, and afterwards served under different generals, who succeeded him. In 1799, he was at the head of the Austrian army, which acted in concert with the Russians under Suwarrow. He distinguished himself at the battle of Cassano; was present at those of Trebia and Novi; beat Championnet at Genola (November 3), and took Coni. In 1800, he lost the battle of Marengo. He died in 1807.

Melasses. (See *Molasses.*)

Melcarthus. (See *Hercules.*)

Melchisedek (i. e. *king of righteousness*) is called, in Genesis (xiv, 18), *king of Salem*, and *priest of the Most High God.* He is there said to have offered Abram bread and wine, after the victory of the latter over the four kings, to have blessed him, and to have received tithes of the booty. Jesus is called (Heb. vi, 20, vii, 1—22) a *high-priest*, *after the order of Melchisedek.* The meaning of this expression, and the dignity, kingdom, &c., of Melchisedek, are not satisfactorily explained by critics.

Melchites (Syrian, *Royalists*) was the name given, in the sixth and seventh centuries, to those Oriental Christians who, in compliance with the imperial orders, submitted to the decrees of the council of Chalcedon. (q. v.) It was, at a later period, given to the Jacobites in Mesopotamia, and to the Copts in Egypt, who were united with the Roman church.

Melchthal, Arnold of (so called from the place of his residence in the canton of Underwalden); one of the founders of the freedom of Switzerland. The governor of the district, under Albert of Austria, having caused a yoke of oxen to be taken from the plough of Arnold's father, a rich proprietor, the menial of the tyrant added the words, "The peasants may drag the plough themselves, if they want bread." Arnold, exasperated by the insult, wounded the servant, and saved himself by flight; but his father experienced the vengeance of the governor, who deprived him of sight. Arnold now conspired with two friends, Fürst and Stauffacher, and all three bound themselves by an oath, on a night of November, 1307, at Grutlin (Rütli), on the banks of the lake of Waldstetter (see *Lucerne*), to effect the deliverance of their country. They promised each in his own canton to defend the cause of the people, and, with the assistance of the communes, to restore it, at every sacrifice, to the enjoyment of its rights. It was expressly agreed not to injure the count of Hapsburg in his possessions and his rights, not to separate from the German empire, and not to deny their dues to the abbeys, or the nobles. They were to avoid, as far as possible, shedding the blood of the territorial officers, since their only object was to secure to themselves and their posterity the freedom inherited from their forefathers. (See *Switzerland.*)

Melcombe, lord. (See *Dodington.*)

Meleager; the son of Œneus, king of Calydon; according to some, of Mars and Althæa. After the birth of the child, the Parcæ came to Althæa, and determined his fate. Clotho said that he would be magnanimous, Lachesis that he would be valiant, and Atropos that he should not die until the brand which lay upon the hearth was consumed. Althæa immediately snatched the brand from the fire, and preserved it with the utmost care. Meleager soon distinguished himself as a hero. He accompanied the Argonautic expedition, gained the prize for throwing the discus at the funeral games established by Acastus, and distinguished himself particularly at the Calydonian hunt. (See *Calydon.*) He killed the boar, and gave the skin of the animal, as the highest token of regard, to his beloved Atalanta, who had given the beast the first wound. The brothers of his mother, Idrus, Plexippus and Lynceus, conceiving themselves to have been injured, robbed Atalanta of the skin, while she was returning home to Arcadia. Meleager, unable to persuade them to restore the skin, slew them all three. Althæa, furious with grief for the death of her brothers, seized the fatal brand, and cast it into the fire; upon which Meleager died in great agony. This story is differently told by other writers. Two excellent statues of Meleager have come down to us from antiquity.

Meleager, a Greek poet, in the first century before the commencement of the Christian era, a native of Gadara in Syria, and a resident at Tyre, died in the isle of Cos, whither he had removed in the latter part of his life. His compositions, consisting of short pieces, or epigrams, are among the most beautiful relics preserved in the Grecian Anthology (q. v.), and, in the simple elegance of their style and sentiment, are finely contrasted with the productions of more recent bards in the same collection. Some of the verses of Meleager have been translated into English by the reverend R. Bland and others, in Selections from the Anthology.

Meleda, or **Melita**; a small island of the Adriatic, on the coast of Dalmatia; lon. 17° 30′ E.; lat. 42° 45′ N. From 1822 to 1825, loud explosions were repeatedly heard on the island, attended with a considerable agitation, and supposed to be occasioned by the shocks of an earthquake, or by discharges of some kind of gas formed in the interior of the earth. (See Partsch's *Account* (in German, Vienna, 1826.) Some writers consider it the place of St. Paul's shipwreck. (See *Melita.*)

Meletians; the followers of Meletius, bishop of Lycopolis, in Egypt, who, in the year 306, during the persecution under Diocletian, had a dispute with Peter, bishop of Alexandria, on the subject of the readmission of some lapsed Christians, whom he (Meletius) rejected. Meletius was deposed by Peter, but paid no attention to the sentence, and even assumed the right of consecrating presbyters, which, by the laws of Egypt, belonged only to the bishop of Alexandria. His gravity and eloquence drew many to his party. The dissensions thereby caused among the Egyptian clergy lasted, even after the council of Nice had forbidden Meletius to exercise the episcopal duties, till almost the end of the fourth century. The Meletians joined with the Arians against the party of the orthodox Athanasius, bishop of Alexandria, but without adopting their heresy. Schismatics of the same name arose at Antioch, when Meletius of Melitene, in Armenia, was chosen bishop (360) by the Arians, and was afterwards driven out, on account of his orthodoxy. Those who considered him as the true bishop, and adhered to him alone, when he returned in the reign of Julian, were called *Meletians*. At his death, which took place in the year 381, this name was discontinued; yet the dissensions of the church at Antioch did not cease till a later date. The Roman and Greek churches reckon this Meletius among their saints.

Melicerta, **Melicertes**, or **Melicertus**; son of Ino, or Leucothea, who, being persecuted by Juno, leapt into the sea. (See *Ino*, and *Athamas.*) Melicerta was changed into a sea-god, and received the name of *Palæmon.* Sailors reverenced him as their protector, who carried their shattered ships safely into port, whence he was called *Portumnus* (q. v.) by the Romans. He is commonly represented with a large blue beard, a key in his hand, or hanging over his shoulder, and swimming. The chief deities of the sea are described riding in a chariot. In many seaport towns, temples were erected in honor of him, and, on the island of Tenedos, children were offered to him.

Melilot (*melilotus officinalis*); a leguminous plant, somewhat resembling clover, and formerly referred to that genus. It is a native of Europe, and is now naturalized in some parts of the U. States. The root is biennial, and gives out one or several stems, which attain the height of one or two feet, and are provided with trifoliate leaves; the leaflets are serrated on the margin; the flowers are small, numerous, pale yellow, and are disposed in long racemes in the axils of the superior leaves; they are succeeded by an almost globular pod, containing a solitary seed. When fresh, the plant has a slight odor, which becomes stronger, and very pleasant, after it has been dried. It seems to render hay more agreeable to the taste of cattle, who, in general, and more especially sheep and goats, are very fond of it. It is adapted to every kind of soil, but, in general, is not cultivated separately. The celebrated Gruyere cheese is said to owe its excellence partly to the flowers and seeds of this plant, which are bruised and mixed with the curd.

Melinda; a kingdom of Zanguebar, on the eastern coast of Africa, in the Indian ocean, having the kingdom of Magadoxo on the north, and that of Zanzibar on the south. Little is known of the country, except its sea-coast. The mass of the population is composed of native negroes, but the rulers and principal people are Arabs. *Melinda*, the capital, is situated on the Indian ocean, in lat. 3° 15′ S., lon. 40° 5′ E. It is large, well built, and contains a great number of mosques. Its commerce is considerable, and is in the hands of Asiatics, being rarely visited by Europeans. The exports are gold, copper, iron and wax; provisions are abundant, and easily obtained. Vasco de Gama was well received here, but the arrogance of the Portuguese soon became insupportable to the inhabitants; a war ensued, and the city was captured by the Portuguese, who retained possession of it till 1698, when it was retaken by the Arabs.

Melissus, son of Ithagenes, and a native of Samos, flourished about 444 B. C. He is distinguished in the history of his country as a statesman and naval commander. As a philosopher, he is considered as belonging to the Eleatic (q. v.) school; he differed from Parmenides in many points, by developing the Eleatic system with still stricter consistency. Parmenides allowed credit to experience obtained through the senses; Melissus represented all existence as one eternal, unlimited and immutable, yet material being, and rejected the experience obtained through the senses; he also maintained that nothing could be known, with certainty, respecting the gods.

Melita. It is related, in the Acts of the Apostles, that Paul, on his voyage to Rome, was cast away on the island of Melita. This has generally been considered to be the island of Malta, the ancient name of which was *Melita;* but some critics have attempted to prove that it was an island on the coast of Dalmatia, in the Adriatic. (See *Paul*, *Meleda*, and *Malta.*)

Mellite, or Honey-Stone, in mineralogy, takes its name from its yellow color, like that of honey. Its primitive figure is an octahedron. The crystals are small; their surface is commonly smooth and shining. Internally, it is splendent. It is transparent, passing into the opaque, and possesses double refraction. It is softer than amber, and brittle. Specific gravity 1.5. to 1.7. It becomes electric by friction. It occurs on bituminous wood and earthy coal, at a single locality in Thuringia. It consists of 46 mellitic acid, 16 alumine, and 38 water.

Mellitic Acid; discovered by Klaproth in the mellite, or honeystone. It is procured by reducing the mellite to powder, and boiling it with about 72 times its weight of water; the alumine is precipitated in the form of flakes, and the acid combines with the water. By filtration and evaporation, crystals are deposited, in the form of fine needles, or in small, short prisms. It is composed of carbon, hydrogen and oxygen. In combination with the earthy alkalies and metallic oxides, it forms compounds called *mellates*.

Melmoth, William, son of an eminent advocate, author of a work entitled The Great Importance of a Religious Life, was born in 1710, and received a liberal education, but does not appear to have studied at either of the universities. He was bred to the law, and, in 1756, received the appointment of commissioner of bankrupts, but passed the chief part of his life in literary retirement at Shrewsbury and Bath. He first appeared as a writer about 1742, in a volume of Letters, under the name of *Fitzosborne*, which have been much admired for the elegance of their style, and their calm and liberal remarks on various topics, moral and literary. In

1757, this production was followed by a translation of the Letters of Pliny the younger (in 2 vols. 8vo.), which has been regarded as one of the happiest versions of a Latin author in the English language, although somewhat enfeebled by a desire to obliterate every trace of a Latin style. He was, also, the translator of Cicero's treatises *De Amicitia* and *De Senectute*. These he enriched with remarks, literary and philosophical, in refutation of the opposing opinions of lord Shaftesbury and Soame Jenyns, the first of whom maintained that the non-existence of any precept in favor of friendship was a defect in the Christian system, while the second held that very circumstance to form a proof of its divine origin. His last work was memoirs of his father, under the title of Memoirs of a late eminent Advocate and Member of Lincoln's Inn. Mr. Melmoth died at Bath, in 1799, at the age of 89.

Melo-drama (from the Greek μελος, song, and δραμα); a short, half-musical drama, or that species of drama in which the declamation of certain passages is interrupted by music. It is called *monodrama* if but one person acts, *duodrama* if two act. It differs from the opera and operetta in this, that the persons do not sing, but declaim, and the music only fills the pauses, either preparing or continuing the feelings expressed by the actors. Generally, the subject is grave or passionate. The German melo-drama is of a lyrical character, with comparatively little action. Objections have been made to it on this ground, that it affords too little variety; that the music only renders it more monotonous, because it expresses only the feeling or passion already expressed in words; that the course of feeling is interrupted by the music; and that the actor is embarrassed during the music, being obliged to fill the pause in his recitation by pantomimic action. The first idea of a melo-drama was given by J. J. Rousseau, in his Pygmalion. The proper inventor of the German melo-dramas, however, was a German actor named Brandes, who wished to prepare a brilliant part for his wife, who excelled in the declamation of lyric poetry. Brandes arranged a cantate of Gerstenberg, after the fashion of Pygmalion. G. Benda (q. v.) composed the music for it. This kind of performance met with great applause, and Goller wrote his Medea; others followed. But the interest in these pieces was not of long continuance, because of the want of action. In modern times, some ballads (for instance, of Schiller) have been set to music, in a melo-dramatic way. Parts of operas have been, likewise, composed in this way, as, for instance, the scene of incantation in Weber's *Freischütz*, and some scenes in the *Preciosa*, by the same. Schlegel, in his Lectures on Dramatic Art and Literature, says, "Under melo-drama, the French do not understand, like the Germans, a play, in which monologues alternate with instrumental music in the pauses, but a drama in high-flown prose, representing some strange, romantic scene, with suitable decorations and machinery." Such was its character from 1790 to 1820, and this sort of exhibition became popular, also, in other countries. On the inclination for it something better might be built, for most melo-dramas are tasteless and extravagant. The new melo-dramas, which have proceeded from the boulevards in Paris, are rude dramas, in which music is interspersed, now and then, in order to heighten the effect.

Melody; in the most general sense of the word, any successive connexion or series of tones; in a more narrow sense, a series of tones which please the ear by their succession and variety; and, in a still narrower sense, the particular air or tune of a musical piece. By melody, in its general, musical sense, the composer strives to express particular states of feeling or disposition, which, in pieces of several voices, is chiefly effected by the principal melody, or chief voice, to which the other voices, with their melodies, are subordinate.* The elements by which the composer is enabled to express a beautiful variety of sentiments and feelings, by means of the melodious connexion of tones, are the variety of tones in themselves, and the variety of transitions from one tone to another, to which is still to be added the variety of the movements in which music proceeds (rhythm). Melody and rhythm are the true means to awaken delight, and where they are wanting, the greatest purity of harmony remains without effect. The proper essence of melody consists in *expression*. It has always to express some internal emotion, and every one who hears it, and is able to understand the language, must understand the feeling expressed. But as melody, in the hands of the composer, is a work of art and taste, it is necessary that, like every other work of art, it should form a whole, in which the various means are combined to produce one effect. This whole must be such that the hearer is kept constantly interested, and can give himself up, with pleasure, to the impressions which he receives. The particular qualities of a good melody are these:—It is indispensable that it should have one chief and fundamental tone, which receives proper gradations by a variation adapted to the expression. This can be effected only by letting the tones proceed according to a certain scale; otherwise there would be no connexion between them. The chief tone, again, must be appropriate to the general idea to be expressed, because every kind of tone has its own character, and the finer the ear of the composer is, the better will he always discover the tone wanted. In very short melodies, or tunes, consisting merely of a few chief passages, the same fundamental tone may remain throughout, or perhaps pass over into its *dominante;* but longer pieces require change of tone, that the harmony also may receive modifications according to the feeling. Thirdly, a good melody requires rhythm. (q. v.) A regular advance from one part to another, whether in music or motion (dancing), affects the mind agreeably, whilst irregular progress fatigues. The love of rhythm is one of the most general feelings of human nature. We find rhythm every where, and to music it is indispensable, as tones without regularity of measure would distract and weary. Hence music is divided into portions or bars; these, again, are divided so as to prevent monotony, without disturbing the general regularity. Accents are given to certain parts, and it is possible greatly to assist the expression of feeling, by slow or quick, gay or solemn movements, and by the variety of accents, and the even or uneven time. (q. v.) Much might be said respecting the skill of the composer to adapt his music, not only, in general, to the idea to be expressed, but also, in song, to the single words, to the pause, which the hearer wishes here, or the speedy movement, which he desires in other places; the necessity of the repetition of words, if the feeling is long and varied, while the word is short; the childish impropriety of representing, as it were by imitative sounds, the ideas presented by particular words, which is much the same as if a declaimer, every time that he pronounces the word *ocean*, were to endeavor to represent the roaring of the waves; the parts where dissonances are admissible, &c.; but it would carry us much beyond our limits.

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* In regard to the relative importance of melody and harmony, we may observe, that it is in vain to talk of such things as harmony and melody as more or less important, since an impartial judgment acknowledges the necessity of both, though Rousseau, in the beginning of the contest between the melodists and harmonists, declared harmony the invention of Gothic barbarism, necessary only for dull northern ears. One of the most scientific musicians of France says, "Melody is, for music, what thought is for poetry, or drawing for painting; rhythm is, in music, what metre is in the art of versification, or perspective in drawing; in fine, harmony, by its cadences, the variety of its concords, the fullness of its modulation, the nature of its rests at the end of phrases, and, above all, by the steadiness which it alone can give to intonation, is the first and essential requisite of the enjoyments of the sense of hearing, is the logic of the art of music."

Meloe. These insects have the elytra, or wing covers, short, extending about half the length of the body; the antennæ, or feelers, are jointed, of which the middle divisions are the largest. They are slow and heavy in their motions, and have a large head. They feed on the leaves and flowers of different vegetables. They do not occur in as large numbers as some of the genera closely allied to them, viz., *cantharis* and *lytta*, but have, in common with these insects, the property of blistering the human skin. Linnæus included the well-known and valuable Spanish fly in this genus; but it was very properly separated from it by Fabricius, and placed in the genus *cantharis*, of which it forms the type. (See *Cantharides.*) These insects emit an oleaginous, yellowish, or reddish liquid, from some of the joints of their feet. In some parts of Spain, they are used in place of the cantharides, or mixed with them. Mr. Latreille is of opinion that these are the insects spoken of by ancient writers, under the name of *buprestis*, and which they considered as very injurious to cattle, and as often causing their death, when swallowed with their food. The *M. proscarabœus*, which is a native of Europe, exudes a large quantity of a fat, oily matter, which has been highly recommended as a stimulating application to poisoned wounds. There are many species of this genus found in the U. States, the largest of which is the *M. purpureus*. Mr. Say has described many of them in the Journal of the Academy of Natural Science, to which we refer for detailed accounts of them. As these insects possess the vesicating property to a considerable degree, they might, where they occur in sufficient quantities, form a very good substitute for the cantharides of the shops.

Melon. The musk-melon is the product of the *cucumis melo*, a rough, trailing, herbaceous plant, having rounded, angular leaves, and yellow, funnel-shaped flowers, Though originally from the warmer parts of Asia, its annual root and rapid growth enable it to be cultivated in the short summers of northern climates; but the flavor of the fruit is much heightened by exposure to a hot sun. The form of the fruit is, in general, oval, but varies exceedingly in the different varieties, which are very numerous. In some, the external surface is smooth; in others, rugged or netted, or divided into segments by longitudinal grooves. The odor of the fruit is delightful. The flesh is usually yellow, and has a sugary and delicious taste. It has been cultivated in Europe from time immemorial.—The water-melon is the product of the *C. citrullus*, a vine somewhat resembling the preceding, but having the leaves deeply divided into lobes. It is smooth, roundish, often a foot and a half in length, and has a thin, green rind. The seeds are black or red. The flesh is usually reddish, sometimes white, icy, and has a sugary taste; it melts in the mouth, and is extremely refreshing. It is cultivated, to a great extent, in all the warm countries of both continents, and even in high northern latitudes. It serves the Egyptians for meat and drink, and is the only medicine used by them in fevers. These two plants, together with the cucumber, gourd, &c., belong to the natural family *cucurbitaceæ*.

Melos (now *Milo*); an island of the Ægean sea, about 60 square miles in extent, with about 500 inhabitants. The island has a wild, uncultivated appearance, sulphureous springs abound, and volcanic exhalations burst from the rocky and sterile soil. Oil, wine, cotton and fruits, such as oranges, melons (which derive their name from the island), figs, &c., are produced. Lon. 24° 22′ E.; lat. 36° 40′ N. The chief town, Milo (formerly Melos), is now occupied by only 40 families. In 1814, baron von Haller discovered, on the site of the ancient city, an amphitheatre of marble, with numerous fragments of statues and columns, which were bought by the present king of Bavaria. In the vicinity a Greek peasant has since found (1820) a statue of Venus, with three Hermes (q. v.) figures three feet high, which were bought by the marquis de la Rivière, French ambassador at Constantinople, and are now in the royal museum at Paris. The Venus is of the finest Parian marble (*Grechetto*), to which the color of ivory has been given; it is called by the Parisian amateurs, *la Femme du Torse*. Though much injured, the head is not separated from the body. As she held the apple, she was a Venus *victrix;* and she appears to have been modelled after the naked Venus of Praxiteles.—See Clarac's and de Quincy's Descriptions (Paris, 1821); others have supposed it to be a statue of Electra. (See *Venus*.)

Melpomene; one of the Muses, daughter of Jupiter and Mnemosyne. She presided over tragedy. Horace has addressed the finest of his odes to her, as to the patroness of lyric poetry. She was generally represented as a young woman with a serious countenance. Her garments were splendid; she wore a buskin, and held a dagger in one hand, and in the other a sceptre and crowns.

Melrose; a town in Scotland, on the Tweed, 35 miles south of Edinburgh; lon. 2° 47′ W.; lat. 55° 38′ N.; population, 3467. A short distance from the town, on the Tweed, is the abbey of Melrose, one of the largest and most magnificent in the kingdom. It is one of the most beautiful Gothic structures in Great Britain, the admiration of strangers, and much visited by travellers. It was built by king David, in 1136, in the form of St. John's cross; 258 feet long, and 137½ broad. The tower is mostly broken down. It was a famous nursery of learning and religion.

Melun (*Melodunum*); an ancient city of France, on the Seine, nine leagues from Paris; lat. 48° 32′ N.; lon. 2° 39′ E. It has some manufactures, and three annual fairs; population, 7250. The Seine here forms an island, and is crossed by two stone bridges, one of which has an arch of 159 feet 10 inches span, and 14 feet 10 inches high. Louis XIV and his court resided here some time, during the war of the Fronde. Abeillard established his school here in the twelfth century.

Melusina; a well known personage in the fairy world; according to some, a kind of female sea-demon, according to others, the daughter of a king of Albania, and a fairy. Paracelsus makes her a nymph. She is generally considered a powerful fairy, who married a prince of the house of Lusignan. She was, like most fairies of her time, obliged, on certain days of the month, to take the shape of a fish, at least in respect to half her body; she had, therefore, strictly enjoined the prince, her husband, with whom she lived most happily in the castle of Lusignan, to leave her alone on such days, and not to dare to look at her. The prince, however, like other mortals, was curious, entered her chamber on one of the forbidden days, and saw her in her state of metamorphosis. She immediately uttered a shriek, and disappeared; but ever after, when an important death was about to take place in the family of Lusignan, and when they became related to the kings of France, also in the royal family, she appeared in a mourning dress, on a lofty tower of the castle, until, at last, this tower was demolished, in 1574, by order of the duke de Montpensier, which she strove in vain to prevent, by frequent apparitions. Various versions of this story exist.

Melvil, sir James, a statesman and historian, was born at Hall-hill, in Fifeshire, in 1530; and, at the age of 14, became page to Mary, queen of Scots, then wife to the dauphin of France. After having travelled and visited the court of the elector palatine, with whom he remained three years, on the accession of Mary to the throne of Scotland, Melvil followed her, and was made privy counsellor and gentleman of the bed-chamber, and continued her confidential servant until her imprisonment in Lochleven castle. He was sent to the court of Elizabeth, and maintained correspondences in England in favor of Mary's succession to the English crown. He died in 1606. He left a historical work in manuscript, which was published in 1683, under the title of Memoirs of Sir James Melvil, of Hall-hill, containing an impartial Account of the most remarkable Affairs of State during the last Age.

Melville Island, in the Polar sea; one of the north Georgian group, between 74° and 76° 50′ N. lat., and 105° 40′ and 113° 40′ W. lon. It is surrounded with enormous masses of ice, and the only vegetation is moss. Captain Parry discovered it in 1819, and passed the winter of 1819–20 there. Its only inhabitant in winter is the white bear. (See *Polar Seas.*)—*Melville* is also the name given to an island of the Indian ocean, near the northern coast of New Holland; lat. 11° 20′ S.; lon. 130° 40′ E. It was discovered by captain King, in 1818, and, in 1824, the English government formed a colony there, for the purpose of establishing commercial relations with the Malays. The settlement received the name of *King's cove*, and the harbor that of *Port Cockburn*.

Memel; the most northern town of Prussia, at the mouth of the Dange, on the Kurische Haff; lat. 55° 42′ N.; lon. 21° 3′E.; population 8400, engaged in shipbuilding, manufactures and commerce. The harbor is good, safe, and strongly fortified. About 600 ships enter and leave it yearly. Its exports are corn, hemp, skins, with flax seed and wood from Lithuania.

Memel. (See *Niemen.*)

Memnon, according to fable, was the son of Tithonus and Aurora, and the brother of Emathon. According to some, he was king of Ethiopia, according to others, of the Assyrians. He built a splendid palace and a labyrinth at Abydos, in Egypt, and another palace at Susa, in Persia, which city received from him the epithet of *Memnonia.* Priam, king of Troy, induced him, by the present of a golden vine, to come to his assistance against the Greeks. He performed many valiant exploits, and wounded Achilles himself, by whom he was finally killed. Jupiter, being requested by Aurora to honor her son with some peculiar mark of distinction, caused an innumerable crowd of birds to arise from his ashes (Memnonides), which annually returned to his grave, and fought with each other, thus solemnizing, as it were, funeral games in honor of his memory. After his death, he was worshipped as a hero. At Thebes, on the left bank of the Nile, in the ruins of the Memnonium (palace of Memnon), are still to be seen the remains of colossal statues of Memnon. One of these uttered a joyful sound when the sun rose and shone upon it, but when the sun set, the sound was mournful. It is also related, that it shed tears, and gave out oracular responses in seven verses. This sound was heard till the fourth century after Christ. Descriptions of this sounding statue, and accounts of the sound heard, are to be found in the works of Pausanias and Strabo, and among modern authors, in those of Pococke and Norden. There have been many hypotheses concerning its nature, and also concerning the story of Memnon. Böttiger, in his *Amalthea* (vol. ii, page 174), shows that Memnon and Phamenophis were the same, and that the statue of Memnon represents a hero worshipping the sun, a king or priest saluting the god. Belzoni deposited in the British museum, in 1818, the head of such a statue of Memnon, which is called the younger Memnon.

Memoirs, Historical, are writings in which a person sketches the events experienced and witnessed by himself to furnish matter for his own reflection. They differ from a complete history or chronicle in the limited nature of their subject, treating only of particular events or persons; their authors, too, have either taken part, personally, in the scenes described, or have been connected with the actors so intimately as to have derived their information from the most trust-worthy sources. We are not to expect from them the same precision of arrangement and style which is required in a regular historical work. They are, however, more valuable in proportion as this license is not abused, and the relation is easy without being negligent. They furnish the inquirer with interesting individual anecdotes, often expose the most secret motives, disclose the whole character of events, which are often barely mentioned, entirely omitted, or merely hinted at with a timid circumspection, in books of general history, develope details of secret plots and projects, of which the result only is noticed in history, and, under certain limitations, they are entitled to a high degree of credit. They are no less interesting on account of showing the individual character of the writer in his manner of relating events, even supposing his views to be partial, limited, and affected by party prejudices. These qualities give them an advantage over other kinds of historical writings, since they satisfy the mere reader for amusement, as well as the student; the one by the pleasing negligence of their manner, and the other by the value of their materials; although it must be acknowledged, that to the latter, the historical criticism of them is a difficult task. Xenophon's Anabasis, and Cæsar's accounts of his campaigns (Commentaries) are generally considered as the oldest memoirs. But France is the native soil of *mémoires*, in the historical literature of which country, they form a national peculiarity, and where, since the end of the fifteenth century, they have been continually becoming more numerous. The memoirs of Philip de Comines, Brantôme, Sully, Joinville and cardinal de Retz (see these articles, and *French Literature*) deserve particular notice. The memoirs of Martin du Bellay, which relate to the period from 1513 to 1516 (Paris, 1569, folio, edited in a modernized form, by Lambert, Paris, 1753, 7 vols.), are distinguished for vigorous delineation and the national feeling which they display. Blaise de Montluc, in his memoirs, 1521—69, called, by Henry IV, *the soldier's bible* (Paris, 1746, 4vols., 12mo.), is no less frank in revealing his own faults than in commending his own virtues; lively and striking description is blended with the verboseness of an old soldier. Michel de Castelnau is distinguished for the highest political honesty, for the soundness, maturity and clearness of his judgment, as much as for his dignified and tranquil manner (Memoirs, 1559—70, Brussels, 1731, 3 vols., folio). Margaret of Valois, the wife of Henry IV, relates the history of her youth (1561—81) with much, although somewhat artificial elegance and feminine adroitness, but at the same time, evident good nature (Hague, 1715, 2 vols.). Aubigné (1550—1600, Amsterdam, 1623, 3 vols., folio), with all his partiality, his effrontery, his freedom bordering on calumny, and his far-fetched and often unintelligible expressions, is an author of great importance for the history of his times, but must be consulted with caution. Rochefoucault, a nobleman of the acutest wit, and a deep knowledge of human nature, who described the disturbances of the Fronde (1648—52) with the hand of a master, has, notwithstanding his obvious partiality, great clearness and sagacity in narrating and developing events, furnishes admirable portraits of the principal personages described, and is distinguished for animation and natural coloring. His style (which is often, with little propriety, compared to that of Tacitus) is plain, manly and sententious, and his language pure, measured and concise (Trevoux, 1754, 2 vols., 12mo.; Paris, 1804, 18mo.). Among the other numerous French memoirs, those of D'Etrées, De Brienne, De Torcy and Montyon are of especial interest for diplomatists. We may mention also those of St. Simon, Duclos and madame D'Epinay. To these may be added also the works of the Abbè Soulavie; the Confessions of Jean Jacques Rousseau; the Correspondence of Grimm and of La Harpe; the Diary of Bachaumont; the *Considérations sur la Révolution* of Madame de Staël; Garat's work on Suard and the 18th century; the *Mémoires* of Madame Laroche Jacquelin, &c. Within a few years there have been begun in Paris four great collections of memoirs, which are of high importance for libraries and collectors; the first is *Collection complète des Mémoires relatifs à l'Histoire de France depuis le Règne de Philippe Auguste jusqu' au Commencement du dix septiéme Siècle; avec des Notes sur chaque Auteur et des Observations sur chaque Ouvrage, par Monsieur Petitot.* This collection consists of 42 volumes, and is completed. The second is a sequel and continuation of the preceding, under the title of *Collection, etc. depuis l'Avènement de Henri IV, jusqu' à la Paix de Paris, conclue en* 1763, and is also arranged and edited by Petitot. The 23d volume of this second series appeared in April, 1823. Foucault has published these two collections with the greatest typographical accuracy. The third is a collection of memoirs, published and unpublished, relating to the French revolution. This collection, edited by Berville and Barrière, may be regarded as a *chef d'œuvre* of its kind. Each work is preceded by a life of the author; the very correct text is accompanied by emendatory, explanatory and supplementary notes, and at the close are generally the *pièces justificatives*, selected and arranged with great judgment and accuracy. This collection is to consist of the memoirs of Madame Roland, the marquis of Ferrières, Linguet, Dusault, the marquis of Bouillé, baron Besenval, Bailly, Rabaud de St. Etienne, Mounier, the marquis of Lally-Tollendal, the marquis of Rochambeau, Riouffe, Rivarol, Louvet, general Puisaye, the marquis of Montesquiou, Camille Desmoulins, St. Just, Necker, Cléry, Mallet du Pan, Barbaroux, Frèron, Garat, general Doppe, Beaumarchais, Ramel, Aymé, Marmontel, Phelippeau, Antonelle, Courtois, Dumouriez, madame Campan, Morellet, and many others. The fourth collection contains memoirs of the English revolution, translated and edited by Guizot. This collection is also conducted with great judgment, accompanied with introductions, notes, and documents, and deserves a place in every large library. It consists of 25 volumes, containing the memoirs of Thomas May, or the history of the Long Parliament, those of sir Philip Warwick, who flourished in the reign of Charles I, sir John Berkley, Thomas Herbert and Price, Hollis, Fairfax, Huntington, Mrs. Hutchinson, Ludlow, lord Clarendon, Burnet, Temple, Reresby, and others. In German, works of this description are very rare. Among the most interesting of these are memoirs of the margravine of Bayreuth, the sister of Frederic the Great, originally written in the French language; and among the most important are those of Frederic the Great himself, *Histoire de mon Temps* (History of my own Times), &c. Dohm's highly valuable Memoirs are of a different class from those of which we treat here, consisting of a series of historical treatises upon the events of our times, in which Dohm has taken more or less part, or respecting which he has made investigations. The banishment of Napoleon to St. Helena and his subsequent death have given rise to the publication of many works of this sort, from which we have obtained valuable accounts of the most important occurrences and most prominent characters of our times. (See the works mentioned in the article *Napoleon.*) Among the English works of this description, we may mention Burnet's Memoirs of his own Times; Pepys's Memoirs, comprising his Diary, from 1659 to 1669; Evelyn's Memoirs, comprising his Diary, from 1641 to 1705—6; Horace Walpole's Memoirs of the last ten Years of George II; Calamy's Life and Times (1671 to 1731); Life of Edward, Lord Herbert of Cherbury; Melvil's Memoirs relating to the Reigns of Queen Elizabeth, Mary, Queen of Scots, and James I; Lilly's Life and Times, from 1602 to 1681; Memoirs of Gilbert Wakefield; Clarendon's Life; Life of Richard Watson, Bishop of Landaff; Memoirs of William Hayley,—all written by the men whose names they bear. Among the American works of this class are Winthrop's Journal; Mather's Magnalia; Memoirs of R. H. Lee; of Josiah Quincy, Jun. &c.; Jefferson's posthumous works contain much information respecting the writer's times. Short literary treatises, especially those papers read before literary societies, are also called *memoirs*. The *Mémoires de l'Académie des Inscriptions et Belles-lettres* (Memoirs of the Academy of Inscriptions and Belles-lettres), and other collections of this description, are well known.

MEMORIAL; in general, whatever serves to preserve the memory of any thing; also a written representation; e. g. state papers, in which the usual forms, or most of them, especially sealing, are wanting. They are much used in the negotiations of ministers, sometimes in the replies and resolutions of sovereigns, for the purpose of avoiding all disputes in regard to rank and ceremonials. There are three sorts: 1st. those containing an address, date and signature, in which the writer speaks in the first person, and the second person is used of the individual addressed (memorials in the form of letters); 2d. those which also contain an address, date and signature, but in which the writer speaks of himself in the third person (memorials proper); 3d. those which have no address, and often no signature, and in which the writer and the person addressed are both spoken of in the third person (notes). These papers are either written and delivered by the court or by the minister. To the former belong (*a.*) circulars to the diplomatic corps, that is, to the foreign agents residing at a court, communicating or requesting information, commonly with the signature of the secretary or minister of foreign affairs; also (*b.*) the answer of a court to the memorial of an ambassador; (*c.*) notes to a foreign cabinet, or to a foreign ambassador, to be transmitted with a memorial to his cabinet. The communications of ambassadors to the courts at which they reside, are generally memorials. but sometimes mere notes; letters are no longer in use.

Memory; that faculty of the mind which receives ideas presented to the understanding, retains them, and exhibits them again. Its power of recalling ideas is sometimes exercised with, sometimes without, an act of volition. Its strength may be greatly increased by judicious culture. Memory is so prominent a faculty of the human mind, so necessary, both in the most common transactions and the highest pursuits of life, so curious in its phenomena, and, at times, so capricious, that it formed, even at a very early period, a subject of philosophical research; and, to a certain degree, more is known about it than about any other faculty; but, beyond this point, it is as incomprehensible as the other powers. It is easy to talk of the memory in metaphors, to speak of impressions on the mind, storehouse of ideas, recalling ideas, &c.; but what is this impression? where is it made? and what does the word signify, as applied to the mind? It is only a metaphor, taken from the physical world, to illustrate an act of the mind, which we can only represent figuratively, and reasoning on this assumption is but a *petitio principii.* Without memory, the whole animal world would be reduced to a kind of vegetative life, such as we observe in the lowest classes of animals, because any variety of action presupposes memory.* Memory embraces all ideas received from the senses, as well as those of an abstract character; all feelings and emotions. The power of memory, in regard to ideas received from the senses, appears to be strongest in regard to the sense of sight. We are able to remember a temple, a picture, a landscape, a face, with great clearness and truth. The ideas of sounds are, also, very strongly retained, the memory of them being more perfect in proportion as the sense of hearing is more nice. Music may be remembered very distinctly. It is not so with the three other senses, smell, feeling, and taste. The ideas received through these senses, it would appear, cannot be remembered with the same liveliness. It is difficult to recall, with much distinctness, the pain of a wound; we usually retain little more than the general idea of suffering.* So particular tastes are not easily recalled. Exercise, indeed, may give the memory considerable power even over these ideas. The taste of his favorite dishes dwells in the mind of the gourmand, and, without making pretensions to *gourmanderie*, a man may remember, with some distinctness, the flavor of a canvass-back duck. The impressions of smell are still more difficult to be recalled. Still, however, though the unaided memory does not easily recall ideas received from the senses, yet when external means of comparison are presented, they are immediately revived. If we smell a flower in this spring, we recollect, at once distinctly, the smell of the same in the last spring, and are in no danger of confounding flowers of different kinds. So with taste. These phenomena are easily explainable, from the fact that the ideas presented by sight and hearing, the two nobler senses, admit most readily of abstraction, and are, therefore, most easily reproduced in the mind, without the physical aid of comparison. Ideas received from objects of sense are sometimes curiously associated with others, so that the recurrence of the first immediately suggests the second. The cases are more striking, of course, in proportion as the organs are more acute. If, for instance, any thing very agreeable, or disagreeable, happens to a man at the very moment of hearing a peculiar sound, or eating something of a peculiar taste, the recurrence of this sound, or taste, involuntarily awakens, in some organizations, an agreeable or disagreeable feeling. The writer can testify from experience, that the effect is sometimes so instantaneous as to prevent the cause from being recognised till after considerable reflection. Considering how many ideas, or notions, we receive through the senses, and how necessary it is that we should readily remember them, to avoid the necessity of moving constantly in the same circle, it is of the greatest importance that our senses should be active, nice, and discriminating, which, undoubtedly, depends, in a great measure, upon their original organization;* but they are susceptible of great improvement by exercise; and it is to be lamented that this point is so much neglected in the case of most children educated in populous cities. How dull are their senses allowed to grow, and how dull are the impressions they give! The importance of strengthening the memory, by direct exercise of its powers, is undoubtedly great, and we may be allowed to say a few words respecting what we conceive to be a popular error at the present time. It is constantly repeated that the highest aim of education is the developement of the intellect, and that mere learning by heart tends to benumb the active powers; the consequence of which has been that the strengthening of memory is, generally speaking, much neglected. The suggestion is undoubtedly true, to a certain extent, and it would be well if it were acted on, in some particulars, more consistently than it is. The system of recitation, for instance, whereby the repetition of the words of an author is substituted for an understanding of his meaning, is carried to an injurious extent here and in England. In all branches of study where the great object is that the pupil should form clear conceptions for himself, as in history, geography, natural philosophy, &c., the mere committing and reciting of stated lessons cannot fail to be injurious; but, on the other hand, memory is a most important instrument both for the business of life and for self-improvement; and, certainly, it is one of the chief objects of education to perfect an instrument which is capable of being strengthened by exercise almost beyond conception. Such exercise, however, is greatly neglected, in the present systems of education. The books of reference which now abound make strong powers of memory apparently less necessary than formerly, but it should be remembered that the circle of knowledge is expanding every day, that the connexion of the various branches of science becomes more intimate every day, and that every day more knowledge is required for a given standing in society. Classification is the great basis of memory. From early childhood, we involuntarily classify; but effort is required to give the memory the full advantage which it may derive from this process. It would be impossible for a shepherd to remember every one of his sheep, as is so commonly the case, had not his mind separated the generic marks from the special, and, by similarities and differences (*classification*), obtained the means of giving each animal a particular character. A similar process takes place in the mind of the learned historian. How could such a man remember, without classification, the wide range of facts which he must embrace? He has acquired the habit of giving to every remarkable fact its proper place in the series of his knowledge, where it is firmly retained by the relations in which it stands to others, as affirming or contradicting them. This process of classification takes place, in different degrees, in every step of the intellectual scale, from the deepest philosopher to the lowest laborer; and the memory of every one, in any branch, is the better the more he classifies. A sailor, who cares not for politics, and hears of a change of ministry, has forgotten it, perhaps, the next day, because it was a mere isolated fact, totally unconnected with the general train of his ideas; whilst the same sailor, perhaps, would recollect, with the greatest distinctness, how one of his brother sailors off such an island, made himself the laughing-stock of his comrades by his clumsy way of handling a rope. A courtier will remember for life a smile from his monarch, or an unfortunate sneeze which befell him at court when taking a glass of wine. It is all-important, then, that instructers should habitually accustom their pupils to this process of classification; but, at the same time, the process of committing to memory is also one which should be steadily pursued. The poets and orators afford the pupil abundant materials for such an exercise.—The caprices of memory are often curious. How strange are the associations of ideas which often take place in spite of us! Every one must have experienced such. The writer recollects a melancholy instance, in the case of an insane boy in an hospital, whose derangement was referred to an irreverent association with the name of God, which occurred to him while singing a hymn in church, and of which he could not divest himself, the painfulness of the impression making it occur to him more forcibly every time he sung in church, till his reason became unsettled. We might observe, in this connexion, that, though man can recall past impressions by a voluntary act of recollection, yet he has not the same power to divest himself of the impressions which the memory presents, by a voluntary forgetfulness. This effect he can produce only by fixing the attention on some other subjects, which may withdraw the attention from the disagreeable idea. Another caprice of the memory is, that we often try to think of a name, or fact, for days and weeks, without success, and, after the lapse of some time, when we have given up the attempt, it all at once suggests itself, when we are occupied with something totally different. To say that the mind continued its action unconsciously suggests no idea. We cannot compare the process to that of a dog separating itself from the chase in which the rest of the pack are engaged. We have no conception of such divided action of the intellect. Any metaphorical explanation of this sort conveys no more idea than Plato's explanation of weak and strong memories, comparing them to wax tablets, the one harder, the other softer. The progress of philosophy has been much hindered by mistaking illustrations for arguments. Another circumstance worthy of remark is, that old people lose their memory for recent events, but retain a lively impression of the events of their earlier years, which shows how much remembrance is influenced by the liveliness of the original impression. It is remarkable, also, how some people, in consequence of diseases, mostly nervous fevers and apoplexies, lose the memory of every thing which happened before their sickness, as if it were erased from the Platonic tablet. The editor found his memory seriously impaired after a wound which had severed several nerves in the neck, but by degrees, though slowly, he recovered it. Instances have been recorded in which some sudden and violent derangement of the system has produced a state in which a person would remember every thing which happened the day before yesterday, &c., but nothing which happened yesterday, &c. The next day, the relative periods of memory and forgetfulness continuing the same, he would remember what, the day before, he had forgotten. We might add to those views of the importance of memory which naturally suggest themselves to every one, that nations, as well as individuals, often suffer from a deficiency of recollection. How often must the historian exclaim, Oh, if they would but remember!—(For the various modes of considering this faculty, see the popular treatises on intellectual philosophy. Locke's chapter on Retention is not very satisfactory; Dugald Stewart's treatise is principally valuable as a practical elucidation of its operations. For instances of persons distinguished for memory, see *Mnemonics*.)

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* It often seems necessary to refer to the memory certain acts of animals, which most people sweepingly refer to that unsatisfactory principle termed *instinct.* Even those actions of animals which would seem most naturally to emanate from instinct, as the fleeing of feeble beasts at the approach of stronger ones, appear not to be instinctive. Captain Clapperton found the cranes in the interior of Africa so tame that they showed not the slightest fear. Mr. de Bougainville found the hares and foxes devoid of all fear when he discovered the Falkland Islands, and the birds allowed themselves to be taken by hand. Similar facts are reported by lieutenant Paulding (in his Cruise of the Dolphin, New York, 1831), and many other travellers. It would appear, then, that the fear apparently natural to many animals is not so, but that, finding themselves attacked, they have remembered the fact at the next approach of their enemy, and, by degrees, contracted their timorous habits, which their young, being accustomed to observe, also contracted. Indeed, observation would seem to warrant us in attributing to them, not merely this power of association, but even the power of combining ideas to produce results. If, for instance, my dog sees, from my motions, that I am about to take a walk, and, having been often prohibited to accompany me, steals quietly out of the room, and awaits me at a certain corner which I generally pass on my walks, who can deny this animal, not only memory, but also the power of drawing conclusions from what he recollects?

* Pain, indeed, when associated with the nobler senses, may be retained with considerable distinctness, as the discords which offend a musical ear, or the sharp grating of a hard-pointed slate pencil on a slate, which offends every ear.

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* This diversity is obvious to all, in the different sensibility of different persons to the pleasures of music and the beauties of nature. The same diversity undoubtedly exists in the senses of smell, taste, &c.; and perhaps it is not uncharitable to surmise that the indulgences of the table are, in some instances, despised less from philosophical moderation, than from an obtuseness of the organ of taste.

Memphis; an ancient city of Egypt, whose very situation has been a subject of learned dispute. According to Herodotus, its foundation was ascribed to Menes, the first king of Egypt. It was a large, rich and splendid city, and the second capital of Egypt. Among its buildings, several temples (for instance, those of Phtha, Osiris, Serapis, &c.) and palaces were remarkable. In Strabo's time (A. D. 20) it was, in population and size, next to Alexandria. Edrisi, in the twelfth century, describes its remains as extant in his time. "Notwithstanding the vast extent of this city," says he, "the remote period at which it was built, the attempts made by various nations to destroy it, and to obliterate every trace of it, by removing the materials of which it was built, combined with the decay of 4000 years,—there are yet found in it works so wonderful as to confound the reflecting, and such as the most eloquent could not describe." Among the works specified by him, are a monolithic temple of granite 13½ feet high, 12 long, and 7 broad, entirely covered within and without with inscriptions, and statues of great beauty and dimensions, one of which was 45 feet high, of a single block of red granite. These ruins then extended about nine miles in every direction, but the destruction has since been so great, that, although Pococke and Bruce fixed upon the village of Metrahenny (Moniet-Rahinet) as the site, it was not accurately ascertained until the French expedition to

Egypt, when the discoveries of numerous heaps of rubbish, of blocks of granite covered with hieroglyphics and sculpture, and of colossal fragments scattered over a space three leagues in circumference, seem to have decided the point. (See Jacotin's account of these ruins in the *Description de l'Egypte.*)

Memphis; a town in the north-west angle of Mississippi, upon a high bluff, which used to be called *Fort Pickering.* This bluff is a fine, commanding elevation, rising more than 100 feet above the level of the river. At the lowest stages of the water, strata of stone coal are disclosed in the bank. The situation of Memphis seems very favorable to the growth of a town, and it is now rapidly increasing. Opposite, in Arkansas, is the uncommonly high, rich and extensive bottom land of Wappanocka. Back of the town, is a fertile, rolling country, heavily timbered, and abounding in springs. The bluffs extend three or four leagues above and below the town. Here is the great road for crossing from Tennessee and Alabama to Arkansas. These facts indicate that the local situation of Memphis is peculiarly favorable to health, and to extensive commerce.

Memphremagog; a lake in North America; the greater part of it lies in Canada, and the rest in Vermont. It is 35 miles long and three miles wide, and communicates with the river St. Lawrence by the St. Francis. It receives the rivers Black, Barton and Clyde from Vermont. Lat. 45° N.; lon. 72° 8′ W.

Men.; an abbreviation of the Italian *meno*, less, used in music, as *men. presto*, less rapid; *men. allegro*, less lively.

Menachanite. (See *Titanium.*)

Menage, Gilles, a distinguished man of letters of the seventeenth century, was born at Angers, 1613, in which city his father was king's advocate. After finishing his early studies with great reputation, he was admitted an advocate, and pursued his occupation for some time at Paris; but, disgusted with that profession, he adopted the ecclesiastical character, so far as to be able to hold some benefices, without cure of souls. From this time, he dedicated himself solely to literary pursuits; and, being received into the house of cardinal de Retz, soon made himself known by his wit and erudition. He subsequently took apartments in the cloister of Notre Dame, and held weekly assemblies (*Mercuriales*) of the learned, where a prodigious memory rendered his conversation entertaining, although pedantic. He was, however, overbearing and opinionative, and passed his life in the midst of petty hostilities. He precluded himself from being chosen to the French academy, by a witty satire, entitled *Requête des Dictionnaires*, directed against the Dictionary of the academy. He died in Paris, 1692, at the age of 79. His principal works are *Dictionnaire étymologique, ou Origines de la Langue Française; Origines de la Langue Italienne; Miscellanea*, a collection of pieces in prose and verse; an edition of Diogenes Laertius, with valuable notes; *Remarques sur la Langue Française; Anti-Baillet*, a satirical critique; *Historia Mulierum Philosophorum; Poésies Latines, Italiennes, Grecques, et Françaises.* After his death, a *Ménagiana* was compiled from notes of his conversation, anecdotes, remarks, &c., which is one of the most lively works of the kind.

Menai Strait, and **Bridge.** Menai strait is a strait about half a mile across, between the island of Anglesea and the coast of Wales. (For an account of the celebrated bridge over this strait, see *Bridge.*)

Menander, the most celebrated of the Greek writers of the new comedy, born at Athens, 342 B. C., is said to have drowned himself on account of the success of his rival Philemon (q. v.), at the age of 52 years, though some accounts attribute his death to accident. The superior excellence of his comedies, the number of which exceeded 100, acquired him the title of *prince of the new comedy.* We have, unfortunately, nothing but a few fragments remaining of them. Leclerc collected them (*Menandri et Philæmonis Reliquiæ*, Amsterdam, 1709). They are also contained in Brunck's *Poetæ Gnomici.* Terence imitated and translated him, and, from his comedies, we may form some idea of the character of those of Menander. (See *Drama*, and *Greek Literature.*)

Menasseh Ben Israel, a celebrated rabbi, was born in Portugal, about 1604. His father was a rich merchant, who, suffering greatly, both in property and person, from the inquisition, fled into Holland. At the age of eighteen, the son was made preacher and expounder of the Talmud, at Amsterdam. In 1632, he published, in the Spanish language, the first part of his work entitled *Conciliador*, &c., of which, the next year, a Latin version was printed by Dionysius Vossius, entitled *Conciliator, sive de Convenientia Locorum S. Scripturæ quæ pugnare inter* *se videntur, Opus ex vetustis et recentioribus omnibus Rabbinis magna Industria ac Fide congestum.* He also published three editions of the Hebrew Bible. In the time of Cromwell, he went to England, and obtained for his nation more privileges than they ever before enjoyed there. He died at Amsterdam in 1659. His other works are the Talmud Corrected, with Notes; *De Resurrectione Mortuorum; Esperanza de Israel*, dedicated to the parliament of England, in 1650, one object of which is to prove that the ten tribes are settled in America; and an Apology for the Jews, in the English language, reprinted in vol. ii of the Phœnix.

Mendelssohn, Moses, a celebrated Jewish philosopher, was born Sept. 12, 1729, at Dessau, Germany. His father, Mendel,* a school-master, though very poor, gave him a careful education. He himself instructed the boy in Hebrew and the rudiments of Jewish learning; others instructed him in the Talmud. The Old Testament also contributed to the formation of his mind. The poetical books of those ancient records attracted the boy particularly. The famous book of Maimonides, *More Nebochim* (Guide of the Erring), happening to fall into his hands, excited him first to the inquiry after truth, and to a liberal way of thinking. He studied this work with such ardent zeal, that he was attacked by a nervous fever, which, carelessly treated, entailed upon him for the rest of his life a crooked spine and weak health. His father was unable to support him any longer, and he wandered, in 1742, to Berlin, where he lived several years in great poverty, dependent on the charity of some persons of his own religion. Chance made him acquainted with Israel Moses, a man of philosophical penetration, and a great mathematician, who, persecuted every where on account of his liberal views, lived also in utter poverty, and became a martyr to truth. This man often argued with Mendelssohn on the principles of Maimonides. He also gave him a Hebrew translation of Euclid, and thus awakened in the youth a love for mathematics. A young Jewish physician, named Kisch, encouraged him to study Latin, and gave him some instruction in this language; doctor Gumpery made him acquainted with modern literature. Thus he lived without any certain support, all the time occupied with study, until a silk manufacturer of his tribe, at Berlin, Mr. Bernard, appointed him tutor of his children. At a later period, he took him as a partner in his business. In 1754, he became acquainted with Lessing (q. v.), who had a decided influence upon his mind. Intellectual philosophy became now his chief study. His Letters on Sentiments were the first fruit of his labors in this branch. He became now also acquainted with Nicolai and Abbt (q. v.), and his correspondence with the latter is a fine monument of the friendship and familiarity which existed between these two distinguished men. Mendelssohn contributed to several of the first periodicals, and now and then appeared before the public with philosophical works, which acquired him fame, not only in Germany, but also in foreign countries. He established no new system, but was, nevertheless, one of the most profound and patient thinkers of his age, and the excellence of his character was enhanced by his modesty, uprightness, and amiable disposition. His disinterestedness was without limits, and his beneficence ever ready as far as his small means would allow. He knew how to elude with delicacy the zealous efforts of Lavater (q. v.) to convert him to Christianity; yet his grief at seeing himself so unexpectedly assailed, brought on him a severe sickness, which long incapacitated him for scientific pursuits. In his *Jerusalem, oder über religiöse Macht und Judenthum*, he gave to the world, in 1783, many excellent ideas, which were much misunderstood, partly because they attacked the prejudices of centuries. In some morning lessons he had expounded to his son, and other Jewish youths, the elements of his philosophy, particularly the doctrine of God. He therefore gave the name of *Morning Hours* (*Morgenstunden*) to the work containing the results of his investigations, of which his death prevented him from completing more than one volume. F. H. Jacobi having addressed to him a treatise On the Doctrine of Spinoza, he thought himself obliged to defend his deceased friend Lessing against the charge of having been an advocate of Spinoza's doctrines. Without regarding the exhausted state of his health, he hastened to publish his piece entitled Moses Mendelssohn to the Friends of Lessing, and became, in consequence, so much weakened, that a cold was sufficient to put an end to his valuable life, in 1786. The German language is indebted to him, in part, for its developement. In the philosophical dialogue, he made the first successful attempt among the writers of his country, taking for his models Plato and Xenophon. Besides the works already mentioned, he wrote *Philosophische Schriften* (Berlin, 1761 and 1771, 2 vols.); his masterpiece, *Phædon*, or On the Immortality of the Soul, which has gone through several editions since 1767, and has been translated into most modern European languages; and his translation of the five books of Moses, the Psalms, &c.

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* It was very customary among the German Jews to add the syllable *sohn* (son) to the name of the father. A similar usage exists among many Asiatic tribes, and among nations in general in their early stages.

Mendez-Pinto, Ferdinand, a celebrated traveller, was a native of Portugal. In 1537, he embarked in a ship bound for the Indies; but, in the voyage, it was attacked by the Moors, who carried it to Mocha, and sold Ferdinand for a slave. After various adventures, he arrived at Ormus, whence he proceeded to the Indies, and returned to Portugal in 1558. He published a curious account of his travels, which has been translated into French and English. Mendez-Pinto, from his excessive credulity, has been classed with the English sir John Mandeville, and both are now chiefly quoted for their easy belief and extravagant fiction.

Mendicant Orders. (See *Orders, Religious.*)

Mendoza, don Diego Hurtado de; a Spanish classic, distinguished, likewise, as a politician and a general, in the brilliant age of Charles V. He was descended from an ancient family, which had produced several eminent scholars and statesmen, and was born at Granada, in 1503. As a poet and historian, he contributed to establish the reputation of Castilian literature; but his public life displayed nothing of the finer feelings of the poet, the impartial love of truth of a philosopher, or the clear discernment of the experienced statesman. Stern, severe, arbitrary, haughty, he was a formidable instrument of a despotic court. When don Diego left the university of Salamanca, where his talents, wit and acquirements had rendered him conspicuous, he served in the Spanish army in Italy, and, in 1538, Charles V appointed him ambassador to Venice. In 1542, he was imperial plenipotentiary to the council of Trent, and in 1547, ambassador to the court of Rome, where he persecuted and oppressed all those Italians who yet manifested any attachment to the freedom of their country. As captain-general and governor of Sienna, he subjected that republic to the dominion of Cosmo I of Medici, under Spanish supremacy, and crushed the Tuscan spirit of liberty. Hated by the liberals, held in horror by Paul III, whom he was charged to humble in Rome itself, he ruled only by bloodshed; and, although constantly threatened with the dagger of assassins, not only for his abuses of his power, but also on account of his love intrigues in Rome, he continued to govern until 1554, when he was recalled by Charles V. Amidst the schemes of arbitrary power, Mendoza employed himself in literary labors, and particularly in the collection of Greek and Latin manuscripts. He sent learned men to examine the monastery of Mount Athos, for this purpose, and took advantage of his influence at Soliman's court for the furtherance of the same object. After the abdication of Charles V, he was attached to the court of Philip II. An affair of gallantry involved him in a quarrel with a rival, who turned his dagger upon him. Don Diego threw him from the balcony of the palace into the street, and was, in consequence, thrown into prison, where he spent his time in writing love elegies. He was afterwards banished to Granada, where he observed the progress of the Moorish insurrection in the Alpujarra mountains, and wrote the history of it. This work is considered one of the best historical writings in Spanish literature. He was also engaged till the time of his death (1575) in translating a work of Aristotle, with a commentary. His library he bequeathed to the king, and it now forms one of the ornaments of the Escurial. (For a criticism on his writings, the reader may consult Bouterwek and Sismondi.) His poetical epistles are the first classical models of the kind in the literature of his country. They are mostly imitations of Horace, written in an easy style, and with much vigor, and show the man of the world. Some of them delineate domestic happiness and the tenderer feelings with so much truth that we can with difficulty recognise the tyrant of Sienna. His sonnets are deficient in elevation, grace and harmony. His *canzoni* are often obscure and forced. In the Spanish forms of poetry, *redondillas*, *quintillas* and *villancicos*, he surpassed his predecessors in elegance of diction. His satires, or *burlescas*, were prohibited by the inquisition. As a prose writer, he forms an epoch; he has been called the father of Spanish prose. His comic romance, written while he was yet a student,—*Vida de Lazarillo de Tormes* (Tarragona, 1536, continued by Luna, Saragossa, 1652),—has been translated into foreign languages. The hero is a cunning beggar, and the life of the various classes of the people is described in it with great spirit and truth. The numerous imitations of Lazarillo de Tormes produced a peculiar class of writings in Spanish literature—*gusto picarresco*, so called. (See *Spanish Literature.*) His second great work, the History of the War of Granada, may be compared with the works of Livy and Tacitus. Though Mendoza does not pronounce judgment, yet it is easy to see, from his relation, that the severity and tyranny of Philip had driven the Moors to despair. The Spanish government would not, therefore, permit the printing of it till 1610, and then only with great omissions. The first complete edition was published in 1776. His complete works also appeared at Valencia, in 1776.

Menedemus of Eretria, in Eubœa; founder of the Eretrian school of philosophy, which formed a branch of the Socratic. He was a pupil of Plato and Stilpo, and ascribed truth only to identical propositions. Diogenes Laërtius wrote his life. He is said to have starved himself to death because he could not engage Antigonus to restore freedom to his country.

Menelaus; son or grandson of Atreus, and brother of Agamemnon. From his father-in-law, Tyndareus, whose daughter Helen he married, he received the kingdom of Sparta. He was at Crete, for the purpose of dividing the inheritance left by his paternal grandfather, Cretus, when Paris carried off his wife Helen, with a part of his treasures and some female slaves, and conveyed them to Troy. On learning this, Menelaus, with Palamedes, went to Troy, to demand satisfaction; and this being refused, he summoned the Greek princes to revenge the affront, according to their promise. He himself led 60 ships to Troy, and showed himself a brave warrior. Homer gives him the title of βοην ἀγαθος, on account of the loudness of his cry in battle, and describes him as mild, brave and wise. After the conquest of Troy, Menalaus took Helen, to return with her to his native land. Eight years he wandered before he reached home. He first went to Tenedos, then to Lesbos and Eubœa, but, being tossed about by storms and tempests, he had to land in Cypria, Phœnicia, Egypt and Libya, and was, in several instances, detained for a long time. On the island of Pharus, on the Egyptian coast, he surprised Proteus asleep, by the aid of Eidothea, his daughter, and compelled him to disclose the means which he must take to reach home. Proteus likewise informed him that he should not die, but would be translated alive into Elysium, as a demigod and the husband of Helen.

Menes. (See *Hieroglyphics*, division *Chronological Periods of Egyptian History.*)

Mengs, Anthony Raphael, one of the most distinguished artists of the 18th century, born at Aussig in Bohemia, 1728, was the son of an indifferent Danish artist, who had settled in Dresden. From the sixth year of his age, the young Raphael was compelled to exercise himself in drawing, daily and hourly, and, a few years later, was instructed by his father in oil, miniature and enamel painting. The father hardly allowed him a moment for play, set him tasks, which he was required to accomplish within a given time, and severely punished him if he failed. In 1741, the young artist accompanied his father to Rome, and studied the remains of ancient statuary, the works of Michael Angelo in the Sistine chapel, and finally, the inimitable productions of the divine Raphael in the Vatican. He was left to pass the day there with bread and water, and in the evening his studies were examined with the greatest severity. In 1744, his father returned with him to Dresden, and Augustus soon after appointed him court-painter. A second visit to Rome was occupied in renewing his former studies, studying anatomy, &c. His first great compositions appeared in 1748, and met with universal admiration. A holy family was particularly admired; and the young peasant girl who served him as a model became his wife. On his return to Dresden, the king appointed him principal court-painter. In 1751, he was engaged to paint the altar-piece for the Catholic chapel, with leave to execute it in Rome. At this time, he made a copy of Raphael's School of Athens for the duke of Northumberland. The seven years' war deprived him of his pension, and, in 1754, he received the direction of the new academy of painting in the Capitol. In 1757, the Celestines employed him to paint the ceiling of the church of St. Eusebius, his first fresco. He soon after painted, for cardinal Albani, the Parnassus in his villa, and executed various oil paintings. In 1761, Charles III invited Mengs to Spain, where his principal works at this time were an assembly of the gods and a descent from the cross. Returning to Rome, he executed a great allegorical fresco painting for the pope, in the *camera de' papiri*, and, after three years, returned to Madrid. At this time, he executed the apotheosis of Trajan, in fresco, his finest work. He died in Rome, in 1779, leaving seven children, thirteen having died previously. His expensive manner of living, and his collections of drawings of masters, vases, engravings, &c., had absorbed all his gains, although during the last 18 years he had received 180,000 scudi. A splendid monument was erected to his memory by his friend the cavalier d'Azara, at the side of Raphael, and another by the empress of Russia, in St. Peter's. Mengs's composition and grouping is simple, noble and studied; his drawing correct and ideal; his expression, in which Raphael was his model, and his coloring, in every respect, are excellent. His works are finished with the greatest care. His writings, in different languages (published, in Italian, by Azara, 1783), particularly his Remarks on Correggio, Raphael and Titian, are highly instructive. His friend, the celebrated Winckelmann (q. v.), rendered him valuable assistance in the preparation of them. (See Göthe's *Winckelmann und sein Jahrhundert.*)

Menilite. (See *Opal.*)

Meninski, or **Menin**, Francis (*Francis a Mesgnien*), a celebrated Orientalist, was born in Lorraine, in 1623, and studied at Rome, under the learned Jesuit Grattini. At the age of 30, he accompanied the Polish ambassador to Constantinople, and, applying himself to the study of the Turkish language, became first interpreter to the Polish embassy at the Porte, and, soon after, was appointed ambassador plenipotentiary to that court. He was naturalized in Poland, and added the termination *ski* to his family name of Menin. In 1661, he became interpreter of the Oriental languages at Vienna, and was intrusted with several important commissions. In 1669, going to visit the holy sepulchre of Jerusalem, he was created a knight of that order, and, on his return to Vienna, was created one of the emperor's council of war. His principal work was his *Thesaurus Linguarum Orientalium*, published at Vienna in 1680. A new edition of this valuable work was begun in 1780, but remains still unfinished. Meninski died at Vienna in 1698.

Menippus, a cynic, and disciple of the second Menedemus, was a native of Gadara, in Palestine. His writings were chiefly of a satirical kind, insomuch that Lucian styles him "the most snarling of cynics," and, in two or three of his dialogues, introduces him as the vehicle of his own sarcasms. It appears that his satires were composed in prose; on which account those of Varro were denominated *Menippean;* and, for the same reason, that of *satire Ménippée* was given, in France, to the celebrated piece written against the league.* Menippus is said to have hanged himself, in consequence of being robbed of a large sum of money. He had been originally a slave, but purchased his freedom, and was made a citizen of Thebes. None of his works is now extant.

Menno, Simonis (i. e. the son of Simon), born in Friesland, in 1505, joined the Anabaptists in 1537, having been previously a Roman Catholic priest. After the suppression of the disturbances at Münster, Menno collected the scattered remnants of the sect, and organized societies, for which he secured the toleration of the government. His peregrinations for many years, in Holland and the north of Germany, as far as Livonia, contributed to increase the number of his followers, and to disseminate his doctrines among those who were not satisfied with the progress of the Protestant churches in reform. Except in some opinions concerning the incarnation of Christ, to which he was probably led by the controversy concerning the bodily presence of Christ in the eucharist, and in the administration of baptism to adults only, his tenets agreed, in general, with those of the Calvinists. Menno died at Oldeslohe, in Holstein, 1561. His followers are called *Mennonites*, an account of whom has been given in the article *Anabaptists.*

Menologium (from μήνη, the moon, and λογος, discourse, report, &c.), in the Greek church, has about the same signification as *martyrologium* (q. v.) in the Roman church. The *Menologium* is a book in which the festivals of every month are recorded, with the names and biographies of the saints and martyrs, in the order in which they are read in the masses, the ceremonies of the day, &c.

Menomonies, Menomenies; a tribe of Indians, residing in the North-West Territory, to the south of lake Superior and west of Green bay, called by the French *Mangeurs de Folle-Avoine* (or Eaters of

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* The title of this ingenious and amusing satire is *Satyre Ménippée de la Vertu du Catholicon d'Espagne, ou de la Tenue des Etats à Paris en 1593, par MM. de la Ste. Union* (Paris, 1594). The title is a satire on Philip II, king of Spain, head of the league, who masked his projects under pretexts of zeal for the Catholic religion. It is the work of several hands, and was, according to Voltaire, of not less advantage to Henry IV than the battle of Ivry.

Wild Oats). They belong to the great Chippeway family. (See *Indians, American.*)

Menou, Jacques François, baron de, born in Touraine in 1750, entered the military service at an early age, and rose rapidly to a high rank. In 1789, the *noblesse* of Touraine chose him their deputy to the states-general, where he was one of the earliest to unite with the third estate. Menou turned his attention particularly to the new organization of the army, and proposed to substitute a general conscription of the young men, in the room of the old manner of recruiting. His subsequent votes and propositions, in favor of vesting the declaration of war in the nation, of arming the national guard (1791), &c., were generally on the revolutionary side; but when the more violent opinions began to prevail, he joined those who endeavored to moderate the excitement. In 1792, he resumed his military duties, and was second in command of the troops of the line, stationed near Paris. In this capacity, he accompanied the king to the assembly, and was afterwards repeatedly denounced to the convention as an enemy to the revolution. He, however, escaped condemnation, and, in May (2 *prairial*), 1795, commanded the troops who defended the convention against the insurgents of the faubourg St. Antoine. On the 13th Vendémiaire, he was likewise in command, but would not allow his troops to attack the section opposed to the convention, and Bonaparte first gained celebrity by undertaking that attack. Menou afterwards accompanied general Bonaparte to Egypt, and distinguished himself by his courage on several occasions. After the return of Bonaparte, he married the daughter of a rich bath-keeper of Rosetta, submitting to all the ceremonies of the laws of Mahomet, and adopting the name of Abdallah. On the death of Kléber (q. v.), he took the chief command, and, after a gallant defence in Alexandria, was obliged to capitulate to the English. Bonaparte received him favorably, on his arrival in France, and appointed him governor of Piedmont. Menou was afterwards sent to Venice, in the same capacity, and died there in 1810.

Menschikoff, Alexander, the son of a peasant, born near Moscow, in 1674, was employed by a pastry-cook to sell pastry in the streets of Moscow. Different accounts are given of the first cause of his rise. According to some statements, he overheard the project of a conspiracy by the Strelitz, and communicated it to the czar; other accounts represent him as having attracted the notice of Lefort (q. v.), who took him into his service, and, discerning his great powers, determined to educate him for public affairs. Lefort took the young Menschikoff with him on the great embassy in 1697, pointed out to him whatever was worthy of his attention, and instructed him in military affairs, and in the maxims of politics and government. On the death of Lefort, Menschikoff succeeded him in the favor of the czar, who placed such entire confidence in him, that he undertook nothing without his advice; yet his passion for money was the cause of many abuses, and he was three times subjected to a severe examination, and was once also condemned to a fine. The emperor punished him for smaller offences on the spot; but much of his selfishness and faithlessness was unknown to his sovereign. He was much indebted, for support, to the empress Catharine. He became first minister and general field-marshal, baron and prince of the German empire, and received orders from the courts of Copenhagen, Dresden and Berlin. Peter also conferred on him the title of duke of Ingria. On the death of Peter, it was chiefly through the influence of Menschikoff that Catharine was raised to the throne, and that affairs were conducted during her reign. (See *Catharine I.*) When Peter II succeeded her on the throne, Menschikoff grasped, with a bold and sure hand, the reins of government. In 1727, when his power was raised to the highest pitch, he was suddenly hurled from his elevation. Having embezzled a sum of money which the emperor had intended for his sister, he was condemned to perpetual exile in Siberia, and his immense estate was confiscated. He passed the rest of his life at Berezov, where he lived in such a frugal way, that, out of a daily allowance of ten roubles, he saved enough to erect a small wooden church, on which he himself worked as a carpenter. He sunk into a deep melancholy, said nothing to any one, and died in 1729. Menschikoff was selfish, avaricious, and ambitious, implacable and cruel, but gracious, courageous, well informed, capable of large views and plans, and persevering in the execution of them. His services in the promotion of civilization, commerce, the arts and sciences, and in the establishment of Russian respectability abroad, have been productive of permanent effects.

Menses. (See *Catamenia.*)

Mensuration is the art of ascertaining the contents of superficial areas, or planes;

of solids, or substantial objects; and the lengths, breadths, &c., of various figures, either collectively or abstractedly. The mensuration of a plane superficies, or surface, lying level between its several boundaries, is easy: when the figure is regular, such as a square, or a parallelogram, the height, multiplied by the breadth, will give the superficial contents. In regard to triangles, their bases, multiplied by half their heights, or their heights by half their bases, will give the superficial measure. The height of a triangle is taken by means of a perpendicular to the base, let fall from the apex or summit. Any rectangular figure may have its surface estimated, however numerous the sides may be, simply dividing it into triangles, by drawing lines from one angle to another, but taking care that no cross lines be made: thus, if a triangle should be equally divided, it may be done by one line, which must, however, be drawn from any one point to the centre of the opposite face. A four-sided figure will be divided into two triangles, by one oblique line connecting the two opposite angles; a five-sided figure (or pentagon) by two lines, cutting, as it were, one triangle out of the middle, and making one on each side; a six-sided figure (or hexagon) will require three diagonals, which will make four triangles; and so on, to any extent, and however long, or short, the several sides may be respectively. The most essential figure is the circle, of which mathematicians conceive it impossible to ascertain the area with perfect precision, except by the aid of logarithmic and algebraic demonstration. It may be sufficient in this place to state, that $8\frac{10}{17}$ of the diameter will give the side of a square, whose area will be correspondent with that of a circle having 10 for its diameter. Many circular or cylindrical figures come under the measurer's consideration—mirrors, arched passages, columns, &c. The contents of a pillar are easily ascertained, even though its diameter may be perpetually varying; for if we take the diameter in different parts, and strike a mean between every two adjoined measurements, and multiply that mean area by the depth or interval between the two, the solid contents will be found. The contents of pyramids are measured by multiplying the areas of their bases by half their lengths, or their lengths by half the areas of their bases. Cones, whose sides are straight, are equal to one third the solid contents of cylinders, equal to them in base and altitude. Solids, which have a certain degree of regularity, may be easily measured: thus a cube is computed by multiplying first its width by its length; then their product by its height: thus a cube, measuring four feet each way, would be $4 \times 4 = 16 \times 4 = 64$. This is the meaning of what is called the *cube root.* (See *Cube.*) Parallelopipedons, or solids of a long form, such as squared timbers, are measured by the same means. For the mensuration of growing timber, various modes have been devised. After a tree has been felled, its girth is usually taken at each end, and at the middle, when there is no particular swell, or the top extremity does not suddenly decrease. But where the irregularity is great, it is better to take many more girths, and, summing up the whole, to divide their amount by the number of girths taken, so as to establish a mean measurement. Divide that mean measurement by 4, to find the side of a square to which the tree will be reduced when prepared for the sawyer. If the whole solid contents are to be estimated, divide by 3, instead of by 4, and taking the third part, thus given, for a diameter, proceed in the way already shown, to find the side of a square, equal to the circle of which that ascertained third part is the diameter. Solid bodies, or areas, such as hay-stacks, interiors of barns, granaries, &c., come under the rule laid down for cubes, &c. When any sides fall in regularly, as in garrets, &c., the inclined part must be treated as a pyramid, or as a quoin (or wedge), and the whole be summed up together. The contents of casks, tubs, &c., are found by the process of gauging. (For that part of the subject which appertains to the admeasurement of lands, as also to the distances, heights, &c., of remote objects, accessible or otherwise, see *Surveying*.)

MENTAL DERANGEMENT, INSANITY. By these general terms we understand every form of intellectual disorder, whether consisting in a total want or alienation of understanding, as in idiocy, or in the diseased state of one or several of the faculties. Medical writers have adopted different systems of classification, in their treatment of this subject; but perhaps the most convenient is that which comprises all mental diseases under the four heads of mania, melancholy, demency or fatuity, and idiocy. Lunacy, in its proper sense, implies an influence of the changes of the moon (Latin, *luna*) on the state of the mind or body, of which modern science cannot recognise the existence. It is true that many diseases are periodical in their returns, and it is not improbable that paroxysms of violence among insane persons, may be really increased at the time of a full moon, by the effect of the shadows of clouds, and other objects, as ghosts are generally seen by moonlight; but any other lunar influence neither experience nor science can discover. The causes of insanity are divided, by modern writers, into physical and moral. Every excess of passion, joy, grief, anger, fear, anxiety, &c., may become a moral cause of insanity. Great political or civil revolutions have always been observed to be attended with numerous cases of mental derangement. Pinel observed this phenomenon in France, after the revolution of 1789, and Dr. Rush describes similar effects, in the U. States, after the war of the revolution. Strong religious excitement often produces similar results, although, in many cases, religious enthusiasm is only a form of the malady, and not a cause. Madden (*Travels in Egypt, Nubia*, &c., 1830) states that insanity is rare among the Mohammedans, and attributes it to their consoling belief in the certainty of their salvation. Dr. Rush thinks that the disease is more common among civilized communities than with savages, on account of the greater influence of moral causes on the former. The physical causes of insanity are various and numerous; diseases of various kinds, and of different organs, bodily injuries or wounds, excessive indulgence in eating, drinking, and other sensual pleasures, privation, exposure to extreme cold or heat, &c., are among them. Insane persons are often, however, in good health, and dissection does not always detect a disordered condition of the organs. Philosophy is not sufficiently acquainted with the mutual action and reaction of the body and the mind on each other, to decide how far the disordered state of the one is consistent with the sanity of the other; nor is it certain that there is any one organ or function which must be diseased to affect the mind. Climate, age, occupation and sex, are often mentioned as causes influencing insanity. But climate does not appear to be an exciting cause, although the moral, civil, religious, or physical condition of a nation may have rendered the disorder more frequent in some countries than in others. The seasons, however, appear to exercise an influence, and it is generally observed that the cases of insanity are most numerous in the hottest part of the year. Suicides are most frequent when the thermometer is above 84°. Although many circumstances, both physical and moral, appear to render the female sex most liable to insanity, it does not appear that the number of insane females is greater than that of males: drunkenness being more prevalent among the latter, may be one cause of this. In both sexes, the most active period of life, from 30 to 40, presents the greatest number of cases. In regard to occupation, sufficient data do not exist to show that there is any decided predominance of cases in any particular employment. Idiocy is either a congenital or an acquired defect of the intellectual faculties, or, as Pinel defines it, an obliteration, more or less absolute, of the functions of the understanding and the affections of the heart. Congenital idiocy may originate from a malformation of the cranium, or of the brain itself; the senses are often wanting, or defective, and life is commonly of short duration. Acquired idiocy proceeds from mechanical injury of the cranium, or from an injury or a disease of the brain, from excess in sensual indulgences, intemperance, fatigue, and from moral causes. In this, the senses may be partially affected, or quite destroyed, and life often continues to old age. Absolute idiocy admits of no cure; but it should not too hastily be concluded that a patient is in this state. The term *demency* (fatuity, the μωρια of the Greeks, and *dementia* of later writers) is applied to a complete or partial hebetude of individual faculties, particularly those of association and comparison, producing confusion of thoughts, loss of memory, childishness, a diminution or loss of the powers of volition; it differs from idiocy in being curable. Persons are reduced to this state, because exterior objects make too weak an impression on them; the sensations are, therefore, feeble, obscure and incomplete; the patient does not form a correct idea of objects, nor compare, associate or abstract ideas. It is often merely an attendant of other diseases, or other forms of insanity, and is frequently quite temporary, though it often becomes permanent.—*Mania* (Greek, μανια, madness) is a species of mental derangement, characterized by the disorder of one or several of the faculties, or by a blind impulse to acts of fury. Adults are the principal subjects. A nervous temperament, an irritable constitution, predispose to it. Females are more exposed to it than males, particularly at the period when menstruation begins or ceases, during pregnancy, and after delivery. Violent emotions, a dissipated life, excess in any indulgence, sometimes produce it. The disorder of the intellectual faculties is manifested by extravagant, gay, gloomy or furious emotions; the gestures and words seem automatic. Sometimes the conversation is rational, but the patient bursts out, at intervals, into paroxysms of rage, attacking every thing which he meets; the moral affections also seem deadened, and the most ferocious hatred is displayed towards the most natural objects of love. It is sometimes cured, but sometimes remains stationary, and sometimes is converted into demency. Repeated bleeding, hellebore, cold water poured upon the head, scourging, and other means of terror, were formerly employed as remedies. At present, solitude, warm baths, low diet, &c., are more commonly applied. *Melancholy* (from μελας, black, and χολη, bile), called also *monomanie* (Greek, μονη, only, and μανια, madness); a species of mental disorder, consisting in a depression of spirits. Some dark or mournful idea occupies the mind exclusively, so that, by degrees, it becomes unable to judge rightly of existing circumstances, and the faculties are disturbed in their functions. The powers of the soul become weakened, we might say crippled. If these feelings are allowed to attain a height at which the power of self-control is lost, a settled gloom takes possession of the mind. Consciousness, however, may still continue; the person knows his state. But if consciousness is also lost, if this state becomes continual, the melancholic patient is insensible to the world around him; he only lives within himself, and there only in the circle of one fixed idea. In this disordered state of the feelings, the other faculties may still continue to act, although the mode and result of their operation will necessarily be influenced by the existing disease. There may be reflection in the actions of the patient, but the reflection proceeds from false premises. Several kinds of melancholy are distinguished; the distinctions are founded, however, mostly on the cause of the disease. A very common cause of melancholy is love. He who loses the great object of his wishes and affections, which has absorbed, we might almost say, the whole activity of his soul, feels more than jealousy at the success of a fortunate rival; existence appears to him a blank, and himself the most unhappy of men. Another frequent cause of melancholy is gloomy views of religion. A constant excitement of the feelings by the awful picture of the eternal punishment of sin, often produces absolute despair. The use of such means, to prepare the mind for the reception of deep religious principle, has not unfrequently led to distraction and suicide. Repeated failures in enterprises pursued with anxious zeal, may also reduce the faculties of a man so much, that he becomes wrapt up solely in the idea of his misfortune. Melancholy patients often flee from men, haunt solitary places, such as grave-yards, and are given to nocturnal rambles. The course of the disease is various; sometimes it lasts a series of years; sometimes it ceases of itself, or is cured by medical aid; more frequently it passes over into other kinds of insanity, or into bodily diseases, as dropsy of the chest, consumption, dropsy in the head, apoplexy, &c. It is said that melancholy people rarely suffer from the gout, or are attacked by epidemic diseases. Several physical causes are enumerated as inducing it, particularly a superfluity of black bile (hence the Greek name.) Various derangements in the physical system tend to occasion it, as debility of the nerves, violent flow of the blood to the heart, superfluity of thick blood. (For the light in which the law regards melancholy patients, see the article *Non Compos.*) Burton's Anatomy of Melancholy consists chiefly of extracts from ancient authors, illustrating the causes, effects and cure of that morbid affection. The author's own reflections are few, but they are original, ingenious and striking. The subject of insanity is fully treated in the following works: Burrow's *Commentaries on the Causes, Forms, Symptoms and Treatment of Insanity* (London, 1828); Pinel, *Traité sur l'Aliénation Mentale*; Voisin, *Des Causes Morales et Physiques des Maladies Mentales* (1826); Willis, *Treatise on Mental Derangement* (1823).

Mentchikof. (See *Menschikoff.*)

Mentor, son of Alcimus, the confidential friend of Ulysses, who intrusted to him the care of his domestic affairs, during his absence in the war against Troy. The education of the young Telemachus fell to his charge, and when the latter set out on his voyage in search of his father, Minerva accompanied him under the form of Mentor (*Odyssey*, ii, 390; iii, 12, &c.), acting the part of a prudent and experienced counsellor to the young hero. This character of a sage adviser is more fully developed in the *Télémaque* of Fénélon, in which Mentor plays a conspicuous part. Mentor has thence acquired the metaphorical sense of a wise and faithful counsellor or monitor.

Mentz, or Mayence, or Mainz; a city of Germany, in Hesse-Darmstadt, formerly capital of an electorate and archbishopric, situated at the conflux of the Rhine and Maine, called in Latin *Moguntia*, or *Moguntiacum*; lon. 8° E.; lat. 49° 59′ N.; population, 25,251. It is the strongest town in Germany: towards the river less defence is necessary, but on the land side the works are extensive and complicated. The fortress belongs to the Germanic confederation. The town is built nearly in the form of a semicircle, the Rhine forming the base. The interior is by no means handsome. The streets are crooked, narrow, and gloomy, and the houses mostly old fashioned. It contains a cathedral, a lyceum, schools of medicine, a cabinet of coins and medals, a cabinet of natural history, a gallery of paintings, and a library of 90,000 volumes. The trade consists partly in wine, and partly in commission business, connected with the navigation of the river. The town is famous for the beauty of its environs and prospects. A university was founded here by Charlemagne in 800, and reëstablished in 1482, by the archbishop Diether, of the house of Isenburg, but has been since converted into a lyceum. The honor of the invention of printing was claimed by John Faust (q. v.), a goldsmith of Mentz, and by John Guttenberg. (q. v.) The archbishopric of Mentz was an extensive electoral principality. The archbishop was also elector, and ranked as the first archbishop in Germany. The archbishopric was suppressed in 1802, and the city of Mentz is now only a bishop's see. (See *Germany*.)

Menu. The Hindoo mythology mentions fourteen of these mystical personages, of whom seven have already reigned on the earth. The celebrated code of laws, or the *Manava Dherma Sastra*, which goes under the name of *Menu*, is attributed to the first of the name, or Swayambhoura, the son of Brama. The name is derived from *men*, signifying *intelligence* (Latin *mens*, mind), and sir W. Jones suggests that it is connected with *Menes*, the name of the first king of Egypt and *Minos* (q. v.), the Cretan lawgiver. The code, which has been translated into English by sir W. Jones (Works, vol. iii), is the basis of the whole civil and religious policy of the Hindoos. Menu appears in it relating the history of the creation of the universe to the *Rishis*, or holy saints; he then commands Brigu to repeat the divine laws of Brahma. These laws relate to the divisions into castes, education, marriage, diet, purification, devotion, private and criminal law penances and expiations, transmigration, &c. The last Menu, whose reign is not yet over, was Satyavrata, or Vaivaswata, whose history is given as follows, in the Bhágvat:—Brahma, being inclined to slumber, the demon Hayagriva stole the Vedas from his lips. Heri, the preserver of the universe, discovering this deed, assumed the shape of a small fish, and appeared to the holy king Satyavrata, who was so devout that his only sustenance was water. Having grown to an enormous size in a few days, he was recognised by the pious king, to whom he declared that in seven days the earth should be plunged in an ocean of death, and promised to send a large vessel for his deliverance; into which, continued the god-fish, thou shalt enter with seven saints and pairs of all brute animals; and thou shalt fasten it with a large sea-serpent to my horn, for I will be near thee. Satyavrata complied with these directions, and the primeval male, speaking aloud to his own divine essence, pronounced for his instruction a sacred *purana*, explaining the principle of the soul, the external being. Heri then slew the demon, and recovered the sacred books, and Satyavrata was appointed the seventh Menu; but the appearance of the horned fish was *Maya* (or delusion).

Menzabano; a town of Italy, on the Mincio. On the 28th of December, 1801, a bloody battle was fought here between the French and the Austrians: the French conquered, and made 8000 prisoners.

Menzaleh, or Menzala; a large lake in Egypt, running parallel with the Mediterranean, from which it is divided by a narrow slip of land, 60 miles in length, and from two to twelve in breadth, overflowed and filled by the waters of the Nile. It was anciently called *Tanis*, from the town of that name. Its waters are soft in the time of inundation, and become brackish as the river retreats within its channel. Numerous boats continually fish on the lake. Length of the lake from north-west to south-east 43,000 fathoms, breadth from 12,000 to 26,000.

Menzel, Frederic William; private secretary in the royal cabinet at Dresden, whose treachery hastened the breaking out of the seven years' war. Frederic II, suspecting that negotiations were going on against him between the courts of Petersburg, Vienna and Dresden, directed his minister at the court of Saxony to procure information on the subject. Chance made the ambassador acquainted with Menzel, whose expensive and dissipated habits had plunged him into embarrassments, to relieve which he had been induced to purloin from the public treasury. The unhappy man hoped to preserve himself by a greater crime, and, in consideration of a large sum of money, delivered to the Prussian ambassador copies of the secret correspondence between Saxony, Russia and Austria, relating to Prussia. His conscience, indeed, was awakened, but he could not turn back without forfeiting the protection of the ambassador in case of detection. During a journey to Warsaw, in the retinue of the king, traces of his guilt were at length discovered. Menzel himself was surprised by the report of the discovery of his treachery in a social party. He attempted to save himself by flight, but was arrested at Prague, on the demand of the court of Saxony, and imprisoned, first at Brünn, but after the conclusion of the peace of Hubertsburg, in the castle of Königstein. Here he lived 33 years, at first in the strictest custody. During his imprisonment at Brünn, he cherished the hope that Prussia would stipulate for his liberation at the conclusion of peace. Through the favor of king Frederic Augustus I, his condition was somewhat alleviated in the latter part of his life; he received better food, and permission to take the air now and then; he was also relieved of the heavy chains which he had worn many years. He died in May, 1796, at the age of 70 years.

Menzel, Charles Adolphus, was born in 1784, in Grünberg, Silesia. He studied in Halle, devoting himself particularly to history. He has published several historical works, which, though not equal in deep research to those of many contemporary writers of Germany, are valuable for their descriptive merit, particularly his History of the Germans (Breslau, 1815 to 1823, 8 vols., 4to.), which comes down to the death of Maximilian I. As a continuation of Becker's Universal History, he has written a History of modern Times since the Death of Frederic II (Berlin, 1824, 2 vols.). His last work, Modern History of the Germans, from the Reformation to the Act of Confederacy (vol. i, down to 1532, Breslau, 1826), is to be considered a continuation of his History of the Germans.

Menzikoff. (See *Menschikoff.*)

Mephitic (from the Latin *mephitis*, an offensive odor) is used to signify those kinds of air which will not support combustion or animal life, or, more generally, offensive exhalations of any sort. Modern chemistry has given particular names to many of these. (See *Carbon*, and *Sulphur.*) There was a Roman goddess called *Mephitis*, who was worshipped as a protectress from such exhalations.

Mequinez; a city of Morocco, in Fez, situated in a plain surrounded with fertile valleys and eminences, watered by a number of rivers; 35 miles south-west of Fez, 165 north-east of Morocco; lon. 5° 30′ W.; lat. 35° 56′ N.; population stated by Jackson at 110,000; by Hassel at only 15,000. It is frequently the residence of the emperor. It is surrounded with walls, and the palace is fortified with bastions. The Jews have a quarter appropriated to themselves, walled in and guarded. The Moors at Mequinez are much more affable than in the southern provinces.

Mercantile System, in political economy, is one that prevails to a greater or less extent in every country of Europe. It was introduced in France by Colbert. (q. v.) As originally understood and acted upon, it embraces some fallacious doctrines, and carries some just ones to excess. The notion, for example, that wealth is derived mostly from foreign commerce, and depends upon an annual importation of specie, called the *balance of trade*, is erroneous. This balance was understood to be the bullion or coin received by a country in exchange for a part of its exports, and the foreign trade was supposed to be advantageous and promotive of the national wealth in proportion as the returns of trade were made in the precious metals, instead of other merchandise, whereas an exchange for iron, tin, leather, or any other useful merchantable commodity, is quite as advantageous, as the importation of specie. It will depend upon the wants of the community whether the importation of one or another article will most promote the national wealth. It would be quite absurd, therefore, to attempt, by legislation, to force trade to yield a balance in specie. As far as this was a direct object of the commercial system, it was accordingly mistaken. If a nation needs other things more than specie, such prices will be offered as will induce their importation. But this notion of the importance of the balance of exports and imports is not without its truth in a certain respect. It is undoubtedly an evil for one nation to be constantly indebted to another. It will be found true between individuals, different districts of the same country, and also between different nations, that the indebted party is the one most liable to make sacrifices. If a people or district, or an individual, will keep in advance of their means, and anticipate the income of the coming year, the consequence will be a perpetually straitened and embarrased state. This was always the case with the British American colonies, and even of the states for many years after the establishment of the American independence. The liberal credits in England enabled them to anticipate their income, and they were, accordingly, always largely indebted to England, and thus constantly straitened and distressed, notwithstanding the country was, during the same time, rapidly growing in population and wealth. It is desirable that the commerce of a country should be so conducted as not to keep the country constantly indebted. If we were, therefore, to consider the balance of trade to be a constant standing balance of debt due to, or from, a country, in this sense it would be a subject of great importance. The consequence of large foreign credits, and of the desire to consume more of foreign products than the people have present produce of their labor sufficient to pay for, is occasionally to drive specie from the country; and the more extensive the credits, the more complete and exhausting will be this drain when it happens. This has been a subject of very frequent experience in the trade between the U. States and Europe. The only way of preventing its recurrence is to produce at home so great a proportion of the commodities wanted for consumption, that the exportable produce will be amply sufficient to pay, in the foreign markets, for the foreign products needed. But whether legislation shall be at all, and if at all, to what extent, directed to the advancement of commerce, or any other branch of industry, so as incidentally and consequentially to affect the kind and amount of exchanges with foreign nations, are much agitated questions. The practice of the whole civilized world is to legislate with a reference to national industry, and such it always has been. The real ground of doubt seems to relate to the proper objects and extent of this legislation.

Mercator, Gerard, a mathematician and geographer, born at Rupelmonde (not, as usually stated, at Ruremond), in the Low Countries, in 1512, studied at Louvain, applying himself with such intensity as to forget to take the necessary food and sleep. His progress in the mathematics was very rapid, although without a teacher, and he soon became a lecturer on geography and astronomy, making his instruments with his own hands. Granvella (q. v.), to whom he presented a terrestrial globe, recommended him to Charles V. Mercator entered into the emperor's service, and executed for him a celestial globe of crystal, and a terrestrial globe of wood. In 1559, he retired to Duisburg, and received the title of cosmographer to the duke of Juliers. His last years were devoted to theological studies. He died in 1594. Mercator published a great number of maps and charts, which he engraved and colored himself. He is known as the inventor of a method of projection called by his name, in which the meridians and parallels of latitude cut each other at right angles, and are both represented by straight lines, which has the effect of enlarging the degrees of latitude, as they recede from the equator. His first maps on this projection were published in 1569; the principles were first explained by Edward Wright, in 1599, in his Corrections of Errors in Navigation, whence the discovery has sometimes been attributed to him. His *Tabulæ Geographicæ* (Cologne, 1578) is the best edition of the maps of Ptolemy, and has been merely copied by his successors. His Atlas has been often republished.

Mercer, Hugh, a brigadier-general in the American revolutionary army, was a native of Scotland. He was liberally educated, studied medicine, and acted as a surgeon's assistant in the memorable battle of Culloden. He emigrated from his country, not long after, to Pennsylvania, but removed to Virginia, where he settled and married. He was engaged with Washington in the Indian wars of 1755 &c.; and his children are in possession of a medal which was presented to him by the corporation of the city of Philadelphia, for his good conduct in the expedition against an Indian settlement, conducted by colonel Armstrong, in September, 1756. In one of the engagements with the Indians, general Mercer was wounded in the right wrist, and being separated from his party, he found that there was danger of his being surrounded by hostile Indians, whose warwhoop and yell indicated their near approach. Becoming faint from loss of blood, he took refuge in the hollow trunk of a large tree. The Indians came to the spot where he was concealed, seated themselves about for rest, and then disappeared. Mercer left his hiding-place, and pursued his course through a trackless wild of about one hundred miles, until he reached fort Cumberland. On the way he subsisted on the body of a rattlesnake, which he met and killed. When the war broke out between the colonies and the mother country, he immediately joined the American standard, relinquishing an extensive medical practice. Under Washington, whose favor and confidence he enjoyed beyond most of his fellow-officers, he soon reached the rank of brigadier-general, and, in that command, distinguished himself, particularly in the battles of Trenton and Princeton, in the winter of 1776–7. In the affair of Princeton, general Mercer, who commanded the van of the American army, after exerting the utmost valor and activity, had his horse killed under him; and, being thus dismounted, he was surrounded by some British soldiers, with whom, when they refused him quarter, he fought desperately, until he was completely overpowered. They stabbed him with their bayonets, inflicted several blows on his head with the butt-end of their muskets, and left him for dead on the field of battle. He died in about a week after, from the wounds in his head, in the arms of major George Lewis, the nephew of general Washington, whom the uncle commissioned to watch over his expiring friend. The mangled corpse was removed from Princeton, under a military escort, to Philadelphia, and exposed a day in the coffee-house, with the design of exciting the indignation of the people. It was followed to the grave by at least 30,000 of the inhabitants.—General Mercer, though a lion in battle, was uncommonly placid, and almost diffident in private life. He was beloved and admired, as an accomplished, polished and benevolent gentleman. Some interesting anecdotes of him are related in the 3d chapter, 1st vol. of general Wilkinson's Memoirs. That writer observes—"In general Mercer, we lost, at Princeton, a chief, who, for education, talents, disposition, integrity and patriotism, was second to no man but the commander-in-chief, and was qualified to fill the highest trusts of the country." General Mercer was about 56 years of age when he thus perished.

Mercia, the largest kingdom of the Saxon heptarchy, comprehended all the middle counties of England, and, as its frontiers extended to those of the other six kingdoms, as well as to Wales, it derived its name from that circumstance (Anglo-Saxon *Merk*, marches, q. v.). It was reduced by Egbert (q. v.), king of Wessex. (See Turner's *Hist. of the Anglo-Saxons.*)

Mercier, Louis Sebastian, a French writer, remarkable for the eccentricity of his sentiments. He was born at Paris in 1740, and, at the age of 20, published a volume of heroic epistles, after which he renounced poetry for criticism. In his *Essai sur l'Art dramatique*, he attacked the reputation of Corneille, Racine and Voltaire, proposing to replace their works by his own productions; and, as the comedians paid no attention to his diatribe, he published a virulent manifesto against them. In 1771 appeared, under the title of *L'An* 2440, a declamatory tract, which was suppressed by authority. In 1781 was published, anonymously, the two first volumes of his *Tableau de Paris*; after which he removed to Switzerland, and at Neufchatel printed ten more volumes of that work, which was favorably received, both in France and in other countries. Returning home at the beginning of the revolution, he declared himself a friend to liberty, and, in concert with Carra, published *Les Annales Politiques*, and *Chronique du Mois*,—journals which displayed both moderation and spirit. He became a member of the convention, in which he voted for the detention, instead of the death, of Louis XVI. In 1795, he passed into the council of five hundred, and was subsequently professor of history at the central school, and a member of the institute at its formation. Mercier died at Paris in 1814. Among his numerous works are *Mon Bonnet de Nuit* (Neufchâtel, 1783, 4 vols., 8vo.); *De l'Impossibilité des Systèmes de Copernic et de Newton* (1806, 8vo.); and *Satire contre Racine et Boileau* (1808). (See Ersch's *France Littéraire.*)

Mercure de France; a journal, remarkable for its antiquity. It is a continuation of the *Mercure Galant*, and forms 1800 small volumes. The *Mercure Galant* was established in Paris by J. Donneau de Visé, in 1672, and continued until 1716 (forming 571 12mo. volumes). The periodical then took the title of *Mercure de France*, and appeared, uninterruptedly, from 1717 to 1778, in 603 volumes. Panckoucke edited it from 1778 to 1792 (174 volumes 12mo.). It then became a daily, and sometimes a weekly paper. A new series, until 1797, comprises 40 volumes, 8vo. It was continued, though once interrupted, to 1803. At a later period, the *Minerve Française* appeared, as a continuation. Another periodical adopted the title *Mercure de France*. So long a continuance must necessarily give value to the contents of a journal, although they may not have been of the most interesting character at the time of their publication. *Mercury* is, in France, as well as in Germany, a very common name for periodicals.

Mercuriale; the first Wednesday after the great vacations of the French parliaments. On this day, they held a full session, in order to discuss the deficiencies in the administration of justice, and particularly in the course of business, and to take measures for correcting them. The first president and the crown-advocate (q. v.) had alternately the duty of reporting to the meeting. From the day of assembly, their speeches were called *mercurials*. This name was also given to a reproof or rebuke, because the members, on this day, received their reprimands. (See *Crown-Advocate*, *Parliaments*, and *France*.)

MERCURY (called, by the Greeks, *Hermes*) was the son of Jupiter and Maia, the daughter of Atlas. According to tradition, Arcadia was his birth-place. Four hours after his birth, he left his cradle, and invented the lyre, which he made by killing a tortoise, and stringing the shell with seven strings. He then sang to it the loves of Jupiter and his mother Maia. Having concealed the lyre in his cradle, he began to seek for food; for which purpose, he went, in the evening, to Pieria, and stole fifty oxen of the sacred herd of the gods, which he drove backward and forward to confound their tracks; then, going backward himself, he drove them backward also; and, after having killed two of them near the river Alpheus, roasted them by a fire procured by rubbing two sticks together, and sacrificed a part to the gods. He concealed the remainder in a cavern. He also carefully destroyed all traces of them. The next morning Apollo missed his oxen, and went in search of them; but he could discover no traces of them until an old man of Pylos told him that he had seen a boy driving a herd of oxen in a very strange manner. Apollo now discovered, by his prophetic art, that Mercury was the thief. He hastened to Maia, and accused the infant, who pretended to be asleep, and, not terrified by the threat of the god, that he would hurl him into Tartarus, steadily maintained his innocence. Apollo, not deceived by the crafty child, carried his complaint to the god of gods. Mercury lied even to him. But Jupiter penetrated the artifice of the boy, and perceived him to be the offender; yet he was not angry with him, but, smiling good-naturedly at his cunning, ordered him to show the place where the oxen were concealed. To secure him, Apollo bound his hands; but his chains fell off, and the cattle appeared, bound together by twos. Mercury then began to play upon his newly-invented lyre, at which Apollo was so much enraptured, that he begged the instrument of the inventor, learned of him how to play on it, and gave him a whip to drive the herds, thenceforth belonging to both in common. Apollo was still more astonished when the ingenious god also gave the flute its tones. They then concluded a contract with each other: Mercury promised never to steal Apollo's lyre or bow, and never to approach his dwelling: the latter gave him, in return, the golden wand of peace, the *caduceus*. (q. v.) The ancients represent Mercury as the herald and messenger of the gods. He conducts the souls of the departed to the lower world (whence he is called *Psychopompos*), and is therefore the herald of Pluto, and the executor of his commands. His magic wand had the power to close the eyes of mortals, to cause dreams, and wake the slumbering. The qualities requisite for a herald he possessed in the highest perfection, and bestowed them on others,—grace, dignity, and insinuating manners. He was also the symbol of prudence, cunning and fraud, and even of perjury. We must remember that rude antiquity did not, as we do, associate any thing dishonorable or base with these ideas. Whoever was distinguished for artifice and deceit, as, for example, Ulysses, was a favorite of Mercury, and enjoyed his assistance. Mercury was also distinguished as the god of theft and robbery, especially when fraud and cunning were employed. The exploits of his childhood have this symbolical signification. Among the actions of his manhood, the following are examples of his cunning: He accompanied Hercules when he carried off Cerberus; delivered Jupiter from the cave into which Typhon had cast him; rescued Mars from the prison in which the Aloides, Otus and Ephialtes had confined him; killed Argus, the keeper of the unhappy Io; assisted Perseus, when he went to kill Medusa, and lent him the helmet of Pluto, which rendered him invisible, and his winged sandals; to Nephele, the mother of Phryxus and Helle, he gave the ram with the golden fleece, upon which she carried off her children, when they were about to be sacrificed to the gods, at the instigation of their step-mother Ino. In the wars of the giants, he wore the helmet of Pluto, which rendered him invisible, and slew Hippolytus. When Typhon compelled the gods to fly before him, and conceal themselves in Egypt, he metamorphosed himself into an ibis. He is also mentioned by Homer as the patron of eloquence, and still more particularly by Hesiod. Of his inventions Homer makes no mention. Later writers ascribe to him the invention of dice, music, geometry, the interpretation of dreams, measures and weights, the arts of the palestra letters, &c. He was also regarded as the patron of public treaties, as the guardian of roads, and as the protector of travellers. (See *Hermes*.) Fable relates many of his amours. His children were numerous: among them were Pan and Hermaphroditus. Mercury was worshipped in all the cities of Greece, but Arcadia was the chief place of his worship. His festivals were called *Hermæa*, and were solemnized in various ways. He had several temples in Rome, and his festival took place on the 15th of May (which month received its name from his mother Maia). At this festival, the merchants particularly offered him sacrifices, that he might prosper them in their trade, and render them successful in their enterprises. Art has variously represented Mercury; first, in the rude Hermes. (q. v.) In the monuments of the more ancient style, he appears with his beard just beginning to grow; at a later period, the prevailing representations of him were as an adroit herald and athlete, and he acquired the appearance of extreme youth. In this character, also, room was allowed to fancy. He was represented as a boy, in the prime of youth, and also in the full power of early manhood. Among the curled locks of the boy appear two projecting wings. His dress consisted of a short leather tunic. In his left hand, he bears a purse, and, holding his right forefinger against his chin, smiles archly at some device in his mind. As a youth, we find him represented in a variety of attitudes, sometimes with the purse in his hand, sometimes with the *caduceus*, and sometimes with his winged cap, standing, sitting, or walking. The artists of later times placed him among the youthful and beardless gods. The most prominent traits of his character are vigor and dexterity. His short hair lies curled over his head and forehead; his ears and mouth are small; his positions, whether standing or sitting, always simple and easy; his head inclined forwards, and his look thoughtful. In his beautiful and vigorous frame, we see the inventor of gymnastics; in his attitude, air and aspect, we see the prudence, cunning and good nature of one who can easily gain every body, and accomplish every thing. In the representation of Mercury, the relations of corporeal beauty and mental dexterity are wonderfully preserved. He is either entirely naked, or clad only in the *chlamys*, which is not often put on with any regularity, but is merely thrown over his shoulders or wound round his arms. His head is sometimes bare; sometimes he has a pair of wings fastened on his temples, and sometimes the cap is placed on his head, to which are occasionally added wings (*petasus*). The hat, which particularly denotes a wanderer, has, in works of statuary, a flat top and narrow brim: upon vases, however, his hat is represented with wide, hanging flaps, and a pointed top. If the wings are not attached to a band about his head or hat, they are fastened either to his ankles or the soles of his feet, or to the *caduceus* alone. Artists made the cock his symbol, on account of its vigilance, or love of fighting (in allusion to gymnastics); the tortoise, on account of his invention of the lyre; the purse, because he was the god of traffic; a ram and a goblet, because he was the director of religious ceremonies and sacrifices; the trunk of a palm-tree, upon which his statues lean, because he was the inventor of arithmetic and writing (upon palm-leaves); the *harpe*, or sickle-shaped knife, because he was the slayer of Argus; and the hound (only upon Alexandrine coins), to indicate sagacity and vigilance.

Mercury; a planet. (See the article *Planets*.)

Mercury, or Quicksilver; the *hydrargyrum* of the Latins, from ὑδωρ, water, and ἀργυριον, silver, in allusion to its fluidity and silvery appearance. The name *quicksilver* is derived from the alchemists, who regarded this metal as silver in a fluid state, quickened by some inherent principle, which they hoped either to fix or expel. It was known to the ancients, especially to the Greeks and Romans, who employed it in gilding and in the extraction of the precious metals. It is distinguished from all other metals by its extreme fusibility, which is such that it does not take the solid state until cooled to the 39th degree below 0 (Fahrenheit), and, of course, is always fluid in the temperate climates of the earth. Its color is white, and rather bluer than that of silver. In the solid state, it is imperfectly malleable; specific gravity, 13.6. It is volatile, and rises in small portions at the common temperature of the atmosphere. At the temperature of 656°, it boils rapidly, and rises copiously in fumes. When exposed to such a heat as may cause it to rise quickly in the vaporous form, it gradually becomes converted into a red oxide, provided oxygen be present. This was formerly known by the name of *precipitate per se.* A greater heat than 600°, however, revives this metallic oxide at the same time that this oxygen is again liberated. Mercury, if quite pure, is not tarnished in the cold by exposure to air and moisture; but if it contain other metals, the amalgam of those metals oxidizes readily, and collects as a film upon its surface. It is said to be oxidized by long agitation in a bottle half full of air, and the oxide so formed was called, by Boerhaave, *Ethiops per se;* but it is very probable that the oxidation of mercury, observed under these circumstances, was solely owing to the presence of other metals. The oxides of mercury are two. The *protoxide*, which is a black powder insoluble in water, is best prepared by mixing calomel briskly in a mortar with pure potassa in excess, so as to effect its decomposition as rapidly as possible. The protoxide is then to be washed with cold water, and dried spontaneously in a dark place. It consists of one equivalent, or 200 parts of metal, and one equivalent, or 8 parts of oxygen. The *peroxide*, which is commonly known under the name of *red precipitate*, is prepared, as already mentioned, from the combined agency of heat and air, or by dissolving mercury in nitric acid, and exposing the nitrate so formed to a temperature just sufficient to drive off the whole of the nitric acid. It contains double the quantity of oxygen found in the protoxide. It is acrid and poisonous, and carries these qualities into its saline combinations; whereas the protoxide is relatively bland, and is the basis of all the mild mercurial medicines. Of the combustibles, mercury unites only with phosphorus and sulphur. The *phosphuret* is formed by heating either of the oxides along with phosphorus in a retort filled with hydrogen gas, or under water, with frequent agitation: the oxide is reduced, and a phosphuret is the result. It is of a black color, is easily cut with a knife, and, in the air, exhales vapors of phosphorus. There are two sulphurets, the black and the red, or the *proto-sulphuret*, and the *deuto-sulphuret.* The first is formed by rubbing vigorously in a glass or porcelain mortar three parts of sulphur and one of mercury, or by adding mercury at intervals, and with agitation, to its own weight of melted sulphur. The second, which is commonly called *cinnabar*, or *vermilion*, is formed by subliming the proto-sulphuret. Large quantities of it are manufactured in Holland. The ordinary process consists in grinding together 150 pounds of sulphur and 1080 of quicksilver, and then heating the mixture in a cast-iron pot, two and a half feet in diameter and one foot deep, precautions being taken that the mixture does not take fire. The calcined Ethiops is then ground to powder, and introduced into pots capable of holding twenty-four ounces of water each, to which are attached subliming vessels, or bolt heads of earthen ware. The sublimation usually takes thirty-six hours, when the sublimers are taken out of the furnace, cooled, and broken. The acids sustain an important relation to mercury. All of them either dissolve the metal or unite with its oxides. Sulphuric acid exerts little or no action upon it in the cold, but, if heat be applied, it is decomposed, the mercury is oxidated, sulphurous acid is disengaged, and the oxide combines with the remaining acid. This *proto-sulphate* of mercury crystallizes in slender prisms, forming a mass, soft, and partly liquid. It is very acrid, deliquescent, and soluble in water. If it is urged with a heat gradually raised until the mass becomes dry, the metal is more highly oxidated, and a portion of the acid is dissipated. On pouring boiling water on this dry mass, it acquires a lively yellow color, forming an insoluble powder, known by the appellation of *turbith mineral*, or yellow sulphate of mercury. The water, in this process, produces the usual effect which it has when it decomposes metallic salts. Exerting a stronger attraction to the acid than to the metallic oxide, it combines principally with the former, but, from the influence of quantity on chemical affinity, the acid carries with it a portion of the oxide, and conversely, from the operation of the same force, the oxide which is precipitated retains a portion of the acid combined with it. The neutral sulphate is thus resolved into a super-sulphate, which the water dissolves, and a sub-sulphate, which remains undissolved. This sub-sulphate is chiefly used in preparing corrosive sublimate and calomel. Nitric acid acts on mercury with facility, oxidating it, and combining with the oxide, forming a perfect solution. The product of this action varies considerably, particularly with regard to the state of oxidation, according to the circumstances under which it is exerted. If the acid is diluted with rather more than an equal part of water, and if the action is not accelerated by heat, the protoxide only is formed, and the salt is the *proto-nitrate of mercury.* If the acid is less diluted, and if its action on the metal be promoted by heat, the peroxide is produced, and the compound is the *per-nitrate of mercury.*

Both these solutions, when concentrated, crystallize, a mass being deposited, consisting of a congeries of slender prisms. Both salts are corrosive, deliquescent, and soluble in water. If the solution of the per-nitrate is poured into water, a partial decomposition happens, similar to that of sulphate of mercury, and a yellow insoluble sub-per-nitrate of mercury is precipitated. Nitrate of mercury is decomposed by the alkalies and earths; and in these decompositions are well displayed the differences which arise from different states of oxidation of the metal. By potash, soda or lime, added to the solution of the proto-nitrate, a precipitate of a grayish color, with a tinge of yellow, is thrown down: from the solution of the per-nitrate the precipitate is yellow, more or less bright. These precipitates are sub-nitrates, the oxide, separated by the alkali, retaining a portion of the acid combined with it. The action of ammonia on these solutions is more peculiar. From the solution containing the mercury at a high state of oxidation, it throws down a white precipitate, which is a ternary combination of the oxide, with portions of the acid and alkali. From the solution at which the metal exists at the *minimum* of oxidation, it throws down a precipitate of a dark gray or blue color. The gray precipitate by ammonia (*oxidum hydrargyri cincreum* of the pharmacopœias) is a preparation much used in medicine. It is a mild mercurial, and is very similar, in its operation on the system, to the mercurial preparations formed by trituration. To obtain it of uniform composition, it is necessary to use every precaution to moderate the action of the nitric acid on the metal, as by free dilution with water, and by avoiding the application of heat. A *fulminating* preparation of mercury is obtained by dissolving 100 grains in one and a half ounce by measure of nitric acid. This solution is poured cold into two ounces by measure of alcohol in a glass vessel, and heat is applied till effervescence is excited, though it ordinarily comes on at common temperatures. A white vapor undulates on the surface, and a powder is gradually precipitated, which is immediately to be collected on a filter, well washed, and cautiously dried. This powder detonates loudly by gentle heat or slight friction. It has been very much used of late as the match-powder, or priming, for the percussion caps of the detonating locks of fowling-pieces. Two grains and a half of it, mixed with one sixth of that weight of gunpowder, form the quantity for one percussion cap, according to the researches of Aubert, Pelissier and Gay-Lussac. In preparing this powder in quantities, the fulminating mercury should be moistened with thirty per cent. of water, then triturated in a mortar, and thereafter mingled with the sixth part of its weight of gunpowder. Matches of this kind resist damp very well, and take fire after several hours immersion in water. The detonating match, or priming powder, made with chlorate of potash, sulphur and charcoal, has the inconvenience of rusting and soiling the fowling-pieces, and thence causing them to miss fire; whereas, with the above fulminating powder, 100 shots may be discharged successively. The mercurial percussion caps are sold now in Paris for three francs and a half per thousand. The acetic and most other acids combine with the oxide of mercury, and precipitate it from its solution in the nitric acid. Muriatic acid does not act on mercury. When mercury is heated in chlorine, it burns with a pale-red flame, and the substance called *corrosive sublimate* is formed. This *deuto-chloride* may also be formed by mixing together equal parts of dry bi-deuto-sulphate of mercury and common salt, and subliming. The corrosive sublimate rises, and incrusts the top of the vessel, in the form of a beautiful white semitransparent mass, composed of very small prismatic needles. Its specific gravity is 5.14. Its taste is acrid, stypto-metallic, and eminently disagreeable. It is a deadly poison. Twenty parts of cold water dissolve it, and less than one of boiling water. It is composed of 73.53 mercury and 26.47 chlorine. It may be recognised by the following characters: It volatilizes in white fumes, which seem to tarnish a bright copper-plate, but really communicate a coating of metallic mercury, which appears glossy white on friction. When caustic potash is made to act on it with heat in a glass tube, a red color appears, which by gentle ignition vanishes, and metallic mercury is then found to line the upper part of the tube in minute globules. Solution of corrosive sublimate reddens litmus paper, but changes sirup of violets to green. Bicarbonate of potash throws down from it a deep brick-red precipitate, from which metallic mercury may be procured, by heating it in a tube. Lime-water causes a deep-yellow precipitate, verging on red. Water of ammonia forms a white precipitate, which becomes yellow on being heated. With sulphureted hydrogen and hydrosulphurets, a black, or blackish-brown precipitate appears. Nitrate of silver throws down the curdy precipitate characteristic of muriatic acid; and the proto-muriate often gives a white precipitate. From 6 to 12 grains were the mortal doses employed by Orfila, in his experiments on dogs: they died in horrible convulsions, generally in two hours; but when with a larger quantity, the whites of eight eggs were thrown into the stomach, the animals soon recovered after vomiting. The effect of this antidote is to convert the corrosive sublimate into calomel. Sulphureted hydrogen may also be employed along with emetics. The *proto-chloride* of mercury (*mercurius dulcis*, or *calomel*), is usually formed from the deuto-chloride, by triturating four parts of the latter with three of quicksilver till the globules disappear, and subjecting the mixture to a subliming heat. By levigating and edulcorating with warm water the sublimed grayish-white cake, the portion of soluble corrosive sublimate which had escaped decomposition is removed. It may also be made by adding solution of proto-nitrate of mercury to solution of common salt; the proto-chloride, or calomel precipitates. The following is the process used at Apothecaries' Hall, London:—50 pounds of mercury are boiled with 70 pounds of sulphuric acid to dryness, in a cast-iron vessel; 62 pounds of the dry salt are triturated with 40½ pounds of mercury until the globules disappear, and 34 pounds of common salt are then added. This mixture is submitted to heat in earthen vessels, and from 95 to 100 pounds of calomel are the result. It is washed in large quantities of distilled water, after having been ground to a fine and impalpable powder. When proto-chloride of mercury is very slowly sublimed, four-sided prisms, terminated by prisms, are obtained. It is nearly tasteless and insoluble, and is purgative in doses of five or six grains. Its specific gravity is 7.176. Exposure to air darkens its surface. It is not so volatile as the deuto-chloride. Nitric acid dissolves calomel, converting it into corrosive sublimate. Proto-chloride of mercury is composed of mercury 84.746, and chlorine 15.254. There are two *iodides* of mercury; the one yellow, the other red; both are fusible and volatile. The yellow, or *protiodide*, contains one half less iodine than the deutiodide; the latter, when crystallized, is a bright crimson. They are both decomposed by concentrated sulphuric and nitric acids. The metal is converted into an oxide, and iodine is disengaged. They are likewise decomposed by oxygen, at a red heat.—Mercury, on account of its fluidity, readily combines with most of the metals, to which it communicates more or less of its fusibility. When these metallic mixtures contain a sufficient quantity of mercury to render them soft at a mean temperature, they are called *amalgams*. It very readily combines with gold, silver, lead, tin, bismuth, and zinc; more difficultly with copper, arsenic, and antimony; and scarcely at all with platina or iron. It does not unite with nickel, manganese, or cobalt; and its action on tungsten and molybdena is not known. Looking-glasses are covered on the back side with an amalgam of tin. (See *Silvering*.) The medicinal uses of mercury have already been alluded to. The amalgamation of the precious metals, water gilding, the making of vermilion, the silvering of looking-glasses, the construction of barometers and thermometers, are the principal uses to which this metal is applied. Scarcely any substance is so liable to adulteration as mercury, owing to its property of dissolving completely some of the baser metals. This union is so strong, that they even rise along with it in vapor when distilled. Its impurity, however, can generally be detected by its dull aspect; by its tarnishing, and becoming covered with a coat of oxide, on long exposure to the air; by its adhesion to the surface of glass; and, when shaken with water in a bottle, by the speedy formation of a black powder. Lead and tin are frequent impurities, and the mercury becomes capable of taking up more of these, if zinc or bismuth be previously added. In order to discover lead, the mercury may be agitated with a little water, in order to oxidize that metal: pour off the water, and digest the mercury with a little acetic acid; this will dissolve the oxide of lead, which will be indicated by a blackish precipitate, with sulphureted water; or to this acetic solution add a little sulphate of soda, which will precipitate a sulphate of lead, containing, when dry, 70 per centum of metal. Bismuth is detected by pouring a nitric solution, prepared without heat, into distilled water; a white precipitate will appear, if this metal be present. Tin is manifested, in like manner, by a weak solution of proto-muriate of gold, which throws down a purple sediment; and zinc by exposing the metal to heat.—*Ores of Mercury*. The *native mercury* and the *sulphuret* are the only two ores explored for the extraction of this metal. The first of these is found in globules, disseminated through different rocks, adhering to the sides of cavities and fissures in the form of little drops, and rarely accumulated in basins of considerable dimensions, so as to admit of being dipped up in pails; though it never occurs in sufficient quantity to form the sole object of exploitation. Occasionally it is found amalgamated with silver, containing one third its weight of this metal; in this condition, it is rarely observed crystallized under the form of the rhombic dodecahedron. The *sulphuret* is the common ore, which furnishes nearly all the mercury of commerce. It occurs, crystallized, in rhomboids, and six-sided prisms and tables; color cochineal-red; lustre adamantine and splendent; translucent; streak scarlet-red, shining; harder than gypsum, sectile, and easily frangible; specific gravity, 6.7 to 8.2. It also occurs massive and compact, and often blended with bituminous matter, which communicates to it a liver-brown or black color, whence the name of *hepatic cinnabar*. This ore is very rich, and affords, by analysis, 84 or 85 per centum of mercury; that which is bituminous gives 81 per centum. The muriate of mercury, or *horn quicksilver*, is so rare, and presents itself in such small quantities in the mines, as scarcely to receive the attention of the miner, and it is sought after only by the mineralogist. It occurs in incrustation, and rarely crystallized in quadrangular prisms, terminated by pyramids. It is translucent, with a lustre between adamantine and vitreous, and is sectile. It consists of 76 oxide of mercury, 16.4 muriatic acid, and 7.6 sulphuric acid. The ores of mercury are more frequent in secondary than in primitive rocks, and are found particularly in sandstones, bituminous shales, and argillite, often accompanied by organic remains. In general, mercury is a metal which cannot be said to have a wide distribution, and the mines which furnish it in quantity are few. The principal are those of Idria, in the Austrian dominions, discovered in 1497, and which chiefly afford a bituminous sulphuret of this metal. These mines have already been explored to a depth not far from 1000 feet. They are capable of furnishing annually 6000 quintals of metal; but the Austrian government, in order to maintain the value of the metal, have limited their produce to 1500 quintals per annum. Their total produce from 1809 to 1813, a period of 56 months, was 1,419,425 pounds of mercury; 270,029 pounds of vermilion; 76,225 pounds of lump cinnabar; 6,400 pounds of calomel; 2,867 pounds of red precipitate, and 2,450 pounds of corrosive sublimate. The memorable conflagration of these mines in 1803 was extinguished only by filling their chambers and galleries with water, and the mercury which was sublimed during that catastrophe occasioned the most dreadful diseases among more than 900 persons. Next to the mines of Idria come those of Almaden, in the province of Manche, in Spain, and which are nearly as rich as those of Idria. Their mean annual product is about 5000 quintals of quicksilver. These celebrated mines, near which are also those of Cuebas and Almadenejos, were known to the Romans, and, it is presumed, are those alluded to by Pliny, under the name of the mines of the territory of Sisapanus. After having been, for a great number of years, leased out to the merchants of Augsburg, they are now explored on account of the government, and their product is exclusively applied to the amalgamation of gold and silver in the mines of Mexico and South America. The mines of the palatinate, situated upon the left bank of the Rhine, approach next in importance to those of Idria and Almaden. Their annual product is estimated at about half that of the Spanish mines. There exist in Hungary, in Bohemia, and in many other parts of Germany, small explortations for mercury, of which the total yield is about 400 quintals per annum. The mines of Guanca Velica, in Peru, have afforded an immense supply of quicksilver for the purposes of amalgamation in the new world. Between the years 1570 and 1800, they are said to have furnished 537,000 quintals of this metal; and their actual product is, at present, rated at 1800 quintals. The ores of mercury are found in several places in Mexico, but are nowhere wrought to any extent. In 1590, mercury was sold in Mexico at £40 10*s.* per cwt.; in 1750, it had diminished to £17 15*s.*; in 1782, a further reduction had taken place, the price then being £8 17*s.* 6*d.* The consumption was estimated in the year 1803 (for Mexico), when the mines were in full work, as being 2,000,000 pounds per annum. We have no ores of mercury in the U. States.

Mercy, François de, one of the most distinguished generals in the 30 years' war, was born at Longwy, in Lorraine, and rose in the service of the elector of Bavaria, through the successive ranks. After having defeated general Rantzau at Tuttlingen, he was appointed, with the rank of Bavarian lieutenant-general and imperial field-marshal, to the command of the combined forces, and captured Rotweil and Ueberlingen. In the succeeding year (1644), Friburg fell into his hands, and he threw up a fortified camp in its vicinity. The great Condé attacked him in this position, and, after a combat of three days, compelled him to retire. Turenne pursued him, but the retreat was so ably conducted, that the French general was unable to obtain any advantage over him. May 5 (April 25), 1645, he defeated Turenne, at Marienthal (Mergentheim), and fell, August 3, in the battle of Allersheim, near Nordlingen. He was buried on the field, and a stone was raised with the inscription *Sta, viator, heroem calcas.* Rousseau, in his *Emile* (liv. iv), very justly remarks, that the simple name of one of his victories would have been preferable to this pompous sentence, borrowed from antiquity.

Mercy, Florimond Claude de, a grandson of the preceding, born in Lorraine, 1666, entered the service of the emperor Leopold, 1682, and distinguished himself as a volunteer in the defence of Vienna against the Turks. His gallantry, particularly in the battle of Zenta, 1697 (see *Eugene*), was rewarded with the rank of major. He afterwards served with equal distinction in Italy and on the Rhine. In 1705, he stormed the lines of Pfaffenhofen, and compelled the French to retreat under the cannon of Strasburg. In 1706, he covered Landau by his skilful manœuvres, and supplied it with provisions and troops. In 1707, he defeated general Vivans, at Offenburg; but, in 1709, having penetrated too far into Alsace, was entirely defeated at Rumersheim. In 1716, he commanded against the Turks, as field-marshal, and took part in the victories of Peterwardein and Belgrade. In 1719, he commanded, with equal success, in Sicily, against the Spaniards, and, during the peace, exerted himself in improving the condition of the Bannat. In 1734, he received the command in Italy, and occupied the duchy of Parma; but fell, while leading the attack, in person, on the village of Croisetta. His remains were interred at Reggio.

Merganser (*mergus*); a genus of aquatic birds, consisting of five species. These birds are wild and untamable, migrating, according to the season, from cold to temperate climates. They keep in flocks, the adult males usually by themselves, leaving the young with the females. They are extremely voracious, destroying immense numbers of fish. They build among grass, near fresh water: the nest is lined with down, and contains from eight to fourteen eggs. The male keeps near the nest, though the female alone incubates. They swim with the body very deep in the water, the head and neck only appearing; dive by plunging, and remain under water for a long time. They walk badly; fly well, and for a long time. Their flesh is dry, and of a bad flavor. The species inhabiting the U. States are the goosander (*M. merganser*); minor white, uninterrupted; bill and feet red; nostrils medial; found in both continents; not uncommon in the U. States. Red-breasted merganser (*M. serrator*); minor white, crossed with black; bill and feet red; nostrils basal; a long, slender, pendent crest; found in both continents; common in the Middle States during the spring and autumn. Hooded merganser (*M. cucullatus*); minor white, crossed with black; bill blackish red; feet flesh-color; a large circular crest; peculiar to North America, breeding in the north, wintering in the south; common in the Middle States during the spring and autumn. Smew or white nun (*M. albellus*); minor black, crossed with white; bill and feet bluish. This species is also found in both continents, and is the most beautiful of the genus. It is more common in Europe than in America. In the Middle States, it is very rare. (See Wilson's *Ornithol.*, Pennant's *Arctic Zool.*)

Merian, Matthew, senior, born at Basle, in 1593, studied at Zürich, under Dietrich Meyer, and at Oppenheim, under Theodore de Bry, settled at Frankfort on the Maine, and died in 1651. His principal engravings consist of views of the chief cities of Europe, particularly those of Germany, with descriptions, and are remarkable for the excellence of their perspective. His other works are landscapes, historical scenes, the chase, &c.—His son Matthew, born at Basle, 1621, was a good painter of portraits. He studied at Rome, 1644, travelled in England, the Low Countries, France, &c., and died in 1687.—Maria Sibylla, a daughter of the elder Matthew, was born at Frankfort, in 1647. She studied under her step-father Morefels, and Mignon, and was distinguished by the taste, skill and accuracy with which she painted flowers and insects in water colors. Her zeal for this department of painting induced her to make a voyage to Surinam, for the purpose of observing the metamorphosis of the insects of that country; and, after a residence of two years, she returned with a large collection of drawings of insects, plants and fruits on vellum. Her works are *Erucarum Ortus, Alimentum, et Metamorphosis;* History of the Insects of Europe; and *Metamor-*

phosis Insectorum Surinamensium, with 60 plates. She died at Amsterdam, 1717. One of her daughters published a new edition of the last named work, which her mother was preparing at the time of her death.

Merida, or Yucatan; one of the states of the Mexican confederacy. (See *Yucatan*, and *Mexico*.)

Meridian, in astronomy (from the Latin *meridies*, mid-day), is a great circle of the celestial sphere, passing through the poles of the earth and the zenith and nadir, crossing the equator at right angles, and dividing the sphere into an eastern and western hemisphere. When the sun is on this circle, it is noon or mid-day, to all places situated under that meridian, whence the derivation of the word, as above stated.

Meridian, in geography; a corresponding terrestrial circle in the plane of the former, and which, therefore, passes through the poles of the earth. All places situated under the same meridian have their noon or midnight at the same time; but, under different meridians, it will arrive sooner or later, according as they are situated to the eastward or westward of each other; viz. the sun will be upon that meridian soonest which is most to the eastward, and that at the rate of an hour for every 15 degrees.

First Meridian is that from which all the others are reckoned, which, being totally arbitrary, has been variously chosen by different geographers. Ptolemy makes his first meridian pass through the most western of the Canary islands; others have chosen cape Verd; some the Peak of Teneriffe, others the island of Ferro, &c.; but most nations now consider that the first meridian which passes over their metropolis, or their principal observatory. Thus the English reckon from the meridian of Greenwich; the French from Paris; the Spanish from Madrid; the Americans from Washington, &c.

Meridian of a Globe is the brazen circle in which it turns, and by which it is supported. *The Brazen Meridian* is divided into 360 equal parts, called *degrees*. In the upper semicircle of the brass meridian these degrees are numbered from 0 to 90, or from the equator towards the poles, and are used for finding the latitudes of places. On the lower semicircle of the brass meridian, they are numbered from 0 to 90, from the poles towards the equator, and are used in the elevation of the poles.

Meridian Line is a north and south line, the exact determination of which is of the greatest importance in all cases relating to astronomy, geography, dialling, &c., because on this all the other parts have their dependence. The most celebrated meridian line is that on the pavement of the church of St. Petronio, in Bologna, which was drawn to the length of 120 feet, by the celebrated Cassini. Without knowing the meridian line of a place, it would be impossible to make a dial, set a clock, or measure degrees on the earth's surface. (For the measurement of degrees of the meridian, see the article *Degrees, Measurement of*.)

Meridian Line, on a dial, is the same as the 12 o'clock hour line.

Magnetic Meridian; a great circle passing through the magnetic poles. (See *Magnetism*.)

Meridian Altitude; the altitude of any of the heavenly bodies when they are upon the meridian.

Merino Sheep. (See *Sheep*.)

Merlin, Ambrose, a British writer, who flourished about the latter end of the fifth century. The accounts we have of him are so mixed up with fiction, that to disentangle his real life from the mass would be impossible. He was said to be the son of a demon and a daughter of a king of England who was a nun. His birthplace was Carmarthen, in Caledonia. He was instructed by his father in all branches of science, and received from him the power of working miracles. He was the greatest sage and mathematician of his time, the counsellor and friend of four English kings, Vortigern, Ambrosius, Uther Pendragon, and Arthur. Vortigern, at the advice of his magicians, had resolved to build an impregnable tower, in order to secure himself against the Saxons; but the foundation was scarcely laid, when the earth opened by night and swallowed it up. The magicians informed the king, that to give firmness to the foundation, he must wet it with the blood of a child born without a father. After much search, the young Merlin was brought to the king. After Merlin had heard the dictum of the magicians, he disputed with them, and showed them that under the foundation of the tower was a great lake, and under the lake two great raging dragons, one red, representing the British, one white, representing the Saxons. The earth was dug open, and no sooner were the dragons found, than they commenced a furious battle; whereupon Merlin began to weep, and to utter prophecies respecting the future state of England. The miracles ascribed to him are numerous. He is said to have escaped from the Saxons in a ship of glass. Instead of dying, it was supposed that he fell into a magic sleep, from which, after a long period, he would awake; and to this fable Spenser alludes in his Faery Queen. In the British museum is *Le Compte de la Vie de Merlin et de ses Faiz et Compte de ses Prophécies* (2 vols., folio, on vellum, without date or place). We have also the Life of Merlin, surnamed Ambrosius, by T. Heywood. (See Warton's *History of Poetry*, and Spenser's *Faery Queen*, &c.)

Merlin, Philip Antony, commonly called *Merlin de Douai*, was born in 1754, in the village of Arleux, in Flanders. His father, who was a farmer, had him placed in the rich abbey of Anchin, near Douai. The monks taught him to read and write, sent him to college, and educated him to the profession of the law. The young Merlin was no sooner admitted an advocate, than his benefactors gave him the direction of the legal concerns of their wealthy house, and obtained for him the same charge from the chapter of Cambray. In 1789, he was chosen deputy to the states-general by the *tiers-état* of Douai. When Necker called for a patriotic contribution, in the midst of the distresses of the treasury, M. Merlin offered to the public wants a fourth of his revenue, amounting to 10,000 francs. He was a member of the committee formed to prepare the means of abolishing the feudal system, and drew up many able reports on this subject. After the session, he was appointed president of the criminal tribunal of the North, and, in 1792, deputy to the convention for that department. He voted for the death of the king, without appeal to the people, and without respite. He endeavored to obtain a law, providing that no deputy should be sent before the revolutionary tribunal until the assembly itself should have decreed his accusation. Robespierre and Couthon opposed the law, with menaces against its advocates, and the proposition was lost. From that time till the 9th of Thermidor, Merlin was silent on all the most severe of the revolutionary measures; but, immediately after that day, he spoke against the terrorists. He was afterwards successively president of the convention, and member of the committee of public safety. In March, 1795, he proposed a decree of accusation against Barrère, Billaud de Varennes, Collot d'Herbois, and Vadier; and demanded a new organization of the revolutionary tribunal, with a view to lessen its power. When the sections of Paris were preparing to attack the convention, M. Merlin was one of the first to denounce the city; and, September 30, 1795, obtained a decree that the armed force should be at the sole disposal of the representatives of the people, and that any other authority which should call it into action should be punished with death. On the 5th of Brumaire, he presented in the tribune a code of crimes and punishments, which was decreed in two sittings, and remained in force until 1811. In 1795, the directory appointed M. Merlin minister of justice. After the 18th of Fructidor, in the events of which M. Merlin was one of the principal movers, he was appointed a member of the directory, in the room of M. Barthélemy, but resigned his seat in the executive government in 1799, and retired to Douai. Napoleon recalled him from his retreat, and, under the imperial government, he became advocate-general, commandant of the legion of honor, and received the dignity of count. In 1806, he was appointed a member of the council of state, in which he acquired much influence. On the return of the king, in 1814, M. Merlin was permitted to resign, with a pension. On the return of Napoleon from Elba, M. Merlin hastened to offer him his homage, and was made one of his ministers of state; and he was afterwards chosen member of the chamber of representatives for the department of the North. He had been a member of the institute from its commencement. M. Merlin quitted France in 1816, with the design of passing to America; but being shipwrecked, he obtained permission to reside in the Netherlands. Among his writings are *Traité des Offices de France* (4 vols.); *Recueil des Questions de Droit* (6 vols., 4to.); and *Répertoire de Jurisprudence* (16 vols., 4to.).

Merlin, Anthony Christopher, of Thionville, was born in that town in 1762. He embraced the revolutionary cause, was deputy to the legislative assembly in 1791, and, in 1792, to the national convention, and contracted a close intimacy with Chabot and Bazire. On his arrival in the capital, M. Merlin joined the Jacobin club, and was one of the fiercest enemies of the Feuillants. On the 10th of August, he was remarked as one of the heads of the patriots, and he was supposed to have given the advice to M. Rœderer, to conduct the king to the hall of the assembly. He offered personally to serve in the tyrannicide corps of 1200 men, proposed by Jean Debry. At the time of the king's trial, he was on a mission to Mentz, but wrote from that city that he voted for the death of the tyrant. M. Merlin was shut up in Mentz when it was besieged, and contributed greatly to its defence. In La Vendée, also, he displayed the utmost courage as commissioner of the convention in the army which had been sent home from Mentz, and was employed against the rebels. Robespierre struck down his most intimate friends; and, although Merlin did not openly join in the struggle between that unsparing demagogue and his rivals, yet he readily joined the conquerors, and for ever quitted the Jacobins of the Mountain party. He was a member of the council of five hundred, but his influence had decreased; and, for a long time subsequently, he took no part in public affairs. During the invasion of 1814, he raised a corps of partisans destined to oppose the Russian colonel Guesmard, but had little success in this service. In 1815, the friends of Napoleon invited him to put himself at the head of a similar corps, but he declined it.

Merlon, in fortification, is that part of a parapet which is terminated by two embrasures of a battery. Its height and thickness is the same with that of the parapet; but its breadth is generally nine feet on the inside, and six on the outside. It serves to cover those on the battery from the enemy; and it is better when made of earth, well beat and close, than when built with stones, because they fly about, and wound those they should defend.

Mermaid (from the Anglo-Saxon *mere*, sea); a fabulous creature, which seamen have described as having the head and body of a woman with the tail of a fish. Mermaids are represented as having long green hair, breasts and arms, and as sometimes seen floating on the surface of the ocean. Shakspeare gives them a voice:

> I heard a mermaid, on a dolphin's back,
> Uttering such dulcet and harmonious breath,
> That the rude sea grew civil at her song.
> Oberon, in *Midsummer Night's Dream*.

This reminds us of the ancient syrens, who, however, were winged and clawed. (See *Syrens*.) Mermen have also been seen, if we may trust the sailors. The stories have probably arisen from the appearance of Phocæ, and similar creatures.

Meroë; a city and state of ancient Ethiopia, in the north-easterly part of Africa, upon a fruitful peninsula, surrounded by sandy deserts, and bounded by the Astapus (Bahr el Abiad), the White river, or properly the Nile, on the west, and the Astaboras (now the *Tacazze*) on the east, as far as the modern province of Gojam. It now forms the district of Atbar, between 13° and 18° north latitude, with a town of the same name, and lies in the kingdom of Sennaar, which constitutes a part of Nubia. The people of the ancient priestly state of Meroë, according to Herodotus, were Negroes, and are the only black nation of which we have any account, that has made much progress in intellectual cultivation. They had a fixed constitution, a government, laws, and religion. The government was in the hands of a caste of priests, which chose a king from their own number, who was obliged to live and act according to certain prescribed rules. The priests at Meroë could doom the king to death in the name of the gods, and he must submit. It was customary for the friends (ministers) of the king to share the same fate with their master, even death Ergamenes, king of Meroë, in the third century B. C., during the reign of Ptolemy II, in Egypt, first made himself independent of this oppressive priesthood by murdering the priests in the golden temple. Meroë was the centre of the great caravan trade between Ethiopia, Egypt, Arabia, Northern Africa and India. Several colonies went from Meroë, and the first civilized state in Egypt, that of Thebes, which, as a resort for the caravans, always remained intimately connected with Meroë, and was governed by priests, must have originated thence. The priests were of a lighter complexion than the others, and were probably descended from India, from which, generally speaking, Meroë and the Ethiopian coasts must have received their first inhabitants. Ammonium (see *Ammon*, and *Oasis*) also was a small priestly state, with a king, founded by Egyptians and by Ethiopians from Meroë. Meroë and Axum (in Abyssinia) which appears to have been also a colony from Meroë, remained the centre of the southern commerce till the time of the Arabians. The existing monuments of their architecture, and many other vestiges of them, prove their early religious and social cultivation. Frederic Cailliaud of Nantes has given us the latest accounts of these memorials of Indian and Ethiopian antiquity in his *Voyage à Méroë, au Fleuve Blanc*, &c., *en* 1819—22 (Paris, 1824, in 3 parts, with engravings and maps, 2 vols., folio). Cailliaud took advantage of the Nubian campaign of Ismail, the son of the pacha of Egypt, in 1821, to ascend the Nile farther than his predecessors had done. Gau (q. v.) reached only the second cataract; Browne, in 1793, went only to Cobbe, in Darfour (lat. 16° N.); Bruce went from Sennaar to the coast of the Red sea, as far as 13° 30′; but Cailliaud penetrated into southern Ethiopia, following the principal branch of the Nile to 10° north, 100 leagues above Sennaar, and 300 leagues farther from the southern boundary of Egypt, than Gau, into a new country hitherto unknown to the geographers. He made observations and collections illustrating the physical geography and natural history, besides obtaining materials for an authentic map of the country through which he passed; but he attended particularly to the monuments and ruins of the most ancient architecture. His work, edited by Jomard, therefore forms a sequel to that of Gau, since Cailliaud begins where Gau finished. Cailliaud was well prepared for this second journey, and kept an accurate journal. With his companion Letorzec he settled more than fifty points astronomically, collected plants, animals, and minerals, and particularly took drawings of the remains of temples, pyramids, colossuses, bass-reliefs, and Greek and hieroglyphic inscriptions. He described and sketched about 100 ancient monuments, and discovered, on his way to Meroë, nearly 80 pyramidal sepulchres. The most remarkable are the temples of Naga and Soleb, the ruins of Subah (lat. 15° N.), the pyramids at Parkal and Shendy (Chandy), where the ancient Meroë was probably situated. Here he also found the beetle worshipped by the Egyptians (*Scarabœus*, or *Atenchus sacer*), a gold beetle, from which it may be concluded that the Egyptians derived their worship from the Ethiopians. The latter still wear about their necks the image of the *Scarabœus*. Cailliaud also found in the region of the ancient Meroë the hump-backed ox, and the true ibis, as it is delineated on the Egyptian monuments. Among the more recent travellers to Nubia are the Prussian naturalists doctor Ehrenberg and doctor Hemprich, who, in 1823 et seq., under royal patronage, examined the coasts of the Red sea as far as Nubia and Sennaar. Hemprich died at Massuah, the principal port of Abyssinia, June 30, 1825. Ehrenberg returned, in 1827, to Berlin. Edward Rüppel, a native of Frankfort on the Maine, in 1823, penetrated as far as Dongola, in the upper part of Nubia, and, in 1825, returned to Cairo from an excursion in Nigritia. He then visited the coasts of the Red sea, went thence to Abyssinia, and, in June, 1827, again returned to Cairo. A Russian by the name of Ssenkowskey, who, since 1820, has travelled over some parts of the East and Africa, returned to St. Petersburg in 1822, and published his travels in the Russian language, which, among many other things, probably contain good accounts of Nubia.

Merope; the daughter of Cypselus, king of Arcadia, and the wife of Cresphontes, king of Messene. She bore him many children, of whom the youngest was Æpytus (according to some, Telephontes). Cresphontes having made many changes in favor of the common people, the nobles conspired, and slew him, with all his children except Æpytus, whom Merope concealed, and afterwards sent to her father, by whom he was secretly educated. Polyphontes, who assumed the government in Messene, caused a search to be made for him every where in vain, and offered a reward to whoever should kill him. As soon as the youth was grown up, he went secretly to Messene, with the determination of revenging his father's death. He there demanded of Polyphontes the price which was set upon his own life, pretending that he had killed Æpytus. Merope, expecting a change in the government, had already sent a messenger to bring back her son. The messenger returned with the report that Æpytus had disappeared. She did not therefore doubt that the stranger was actually the murderer of her son, and she determined to kill him while he was asleep. She was on the point of executing her design, when she recognised her son, and concerted measures with him to take vengeance on Polyphontes. She pretended a reconciliation with him, and promised to reciprocate his love. Polyphontes immediately prepared a sacrifice; but, while he was at the altar, Æpytus killed him, and ascended his paternal throne. This story has been dramatised by Voltaire, Maffei, Alfieri, &c.

Merovingians; the first dynasty of Frankish kings, which ruled in the northern part of Gaul, since called *France*. They derived their name from *Merowig* (*Meroveus*), the grandfather of Hlodowig (Clovis). They ruled from 496 till 752, when they were supplanted by the Karolingians (Carlovingians). Thierry (*Lettres sur l'Histoire de France*) has shown that this revolution was a national change, the second dynasty being eastern Franks (Austrasians), who had become predominant over the Neustrians, or Western Franks, to whom the Merovingians belonged. (See *France*.)

Merrimack; a river which rises in New Hampshire. The most northern branch of it, the Pemigewasset, rises from the White mountains and Moosehillock, and, after a course of about seventy miles, is joined by the Winnipiseogee at Sanbornton, and then the river takes the name of *Merrimack*. The course of the river continues southerly about eighty miles, to Massachusetts, when it turns to the east, and, after running about fifty miles further, falls into the Atlantic at Newburyport. It is navigable for vessels of 200 tons to Haverhill. By means of this river and the Middlesex canal, an extensive boat navigation is opened between Boston and the state of New Hampshire as far as Concord. The canals constructed to render the river navigable are Bow canal, a few miles below Concord; Hookset canal, six miles lower; Amoskeag canal, eight miles lower; Union canal, below Amoskeag; a canal round Cromwell's falls, between Merrimack and Litchfield; Wicasee canal, around Wicasee falls, fifteen miles lower; and three miles still lower, commences the Middlesex canal.

Mersch, van der, leader of the Brabant patriots, in 1789, was born at Menin, and entered the French service, in which he acquired the title of the *brave Fleming*. He afterwards served in the Austrian army, in which he rose to the rank of lieutenant-colonel. In the beginning of the opposition to Austria in the Low Countries, the command of a hastily raised body of troops was given to him, with which, though undisciplined and inferior to the enemy, he made a successful attack on the imperial forces at Hoogstraaten, near Antwerp. After some other successful operations, which placed Ghent and Brussels in his hands, the chief command of the Belgian troops was intrusted to him. Party divisions soon, however, found their way into the government, and the enemies of Van der Mersch succeeded, by their intrigues, in removing him from his command, and, although they could prove nothing against him, threw him into prison. He remained in confinement until the Austrians recovered possession of the country, and died at Menin, in 1792, esteemed and regretted.

Merseburg; on the Saal, over which is a stone bridge, seat of government of a circle of the same name, in the Prussian duchy of Saxony, with 8800 inhabitants. It is an old, badly built town. It has a good gymnasium, an obstetrical institute, several religious establishments, and some manufactures. The cathedral has four handsome towers, and an organ of a remarkable size. The bishop Ditmar (died 1018), one of the best historians of the middle ages, lies buried here. Merseburg is celebrated for its beer. Lon. 12° 0′ E.; lat. 51° 21′ N.

Meru, Mount, in the Hindoo cosmology and mythological geography; the sacred mountain, on whose summit resides Siva, situated in the centre of the earth, and sustaining and uniting earth, heaven and hell. It is surrounded by seven zones, or *dwipas*, and seven seas,—the salt sea, the sea of intoxicating liquor, the sea of sugar, the sea of clarified butter, the sea of curds, the sea of milk, and the fresh water sea. Its four sides of four different colors, are directed to the four cardinal points, and watered by four rivers, issuing from a common source.

Meschid, or **Mesghid**, or **Iman Ali**, or **Mesched Ali**; a town of Arabian Irak, 90 miles south of Bagdad; lon. 43° 34′ E.; lat. 32° 5′ N.; population, 6000. It is near a large lake, called *Rahemat*, which communicates with the Euphrates by a canal. This town was built on the spot where Ali, the cousin, friend, and one of the successors of Mohammed, was interred. His tomb is annually visited by a great number of Persian pilgrims, who esteem this point of devótion equal to a pilgrimage to Mecca.

Meschid, or **Mesched**; a city of Persia, in Chorasan; lon. 57° E.; lat. 37° 35′ N.; population stated at 50,000. Five of its twelve quarters are now in ruins. The city is surrounded by a strong wall, seven miles in circumference, but the houses are meanly built. Velvet, of the finest quality, and fur pelisses, much esteemed, are manufactured here. There is also a manufacture of beautiful pottery. In time of peace, caravans pass continually through this town, from Bukharia, Balk, Candahar, Hindoostan, and all parts of Persia.

Mesentery (*mesenterium*, from the Greek μεσος, middle, and ἐντερον, intestine); a membrane in the cavity of the abdomen, attached to the lumbar *vertebræ*, and to which the intestines adhere. Its uses are to sustain the intestines in such a manner that they may possess both mobility and firmness, to support and conduct the blood-vessels, lacteals and nerves, to fix the glands, and give an external coat to the intestines.

Mesmer, Frederic Anthony; a German physician, author of the famous doctrine of animal magnetism, called also *Mesmerism.* He was born at Mersburg, in Suabia, in 1734. He first made himself known in 1766, by the publication of a thesis *De Planetarum Influxu*, in which he maintained that the heavenly bodies exercised an influence on the bodies of animals, and especially on the nervous system, by means of a subtile fluid diffused through the universe. But this whimsical association of the Newtonian philosophy with the reveries of astrologers being too abstruse for general reception, he added the notion of curing diseases by magnetism, and went to Vienna to put his ideas in practice. Father Hell had previously performed some pretended cures by the application of magnets, and he, considering Mesmer as a rival, charged him with borrowing, or rather stealing, his invention. The new empiric thought it prudent, therefore, to renounce the use of common magnets, and declare that his operations were conducted solely by means of the magnetism peculiar to animal bodies. He had little success at Vienna, and his applications to the academies of sciences at Paris and Berlin, and the royal society of London, were treated with neglect. After an abortive attempt to cure Mlle. Paradis, a celebrated blind musician, by the exercise of his art, Mesmer quitted Vienna for Paris, in 1778. There he for some time in vain endeavored to attract the notice of men of science; but at length he succeeded in making a convert of M. Deslon, who, from being his pupil, became his rival, and whom he then represented as an impostor. Mesmer had the impudence to demand from the French government the gift of a castle and estate, as a reward for his pretended discoveries; and the baron de Breteuil actually carried on a negotiation with this pretender, offering him a large pecuniary reward, if he would establish a magnetic *clinicum*, and instruct three persons chosen by government, in his process. The latter condition induced him to reject the proposal, and he removed, with some credulous patients, to Spa. A subscription was opened, to induce him to return to Paris and reveal the principles of his professed discovery. He consequently went thither, gained a number of proselytes, and received 340,000 livres. Government at length appointed a committee of physicians, and members of the academy of sciences, among whom was Franklin, to investigate the pretensions of Mesmer; and the result of their inquiries appeared in an admirable memoir, drawn up by M. Bailly, which completely exposed the futility of animal magnetism, and the quackery of its author. He afterwards resided some time in England, under a feigned name, and then retired to Germany, and, in 1799, published a new exposition of his doctrine, which attracted no notice. He died at his native place, in 1815. He was the author of *Mémoire de F. A. Mesmer sur ses Découvertes*, and other pieces. (See *Magnetism, Animal.*)

Mesne; he who is lord of a manor, and has tenants holding of him, yet himself holds of a superior lord.

Mesne Process; an intermediate process which issues pending the suit, upon some collateral interlocutory matter. Sometimes it is put in contradistinction to *final process*, or *process of execution*; and then it signifies all such process as intervenes between the beginning and end of a suit.

Mesopotamia (Greek, signifying the land between the rivers, called, by the Arabians, *Al Gezira*, or the island). The Greeks called by this name the extensive region enclosed by the Tigris and Euphrates, and bounded on the north by the Taurus and Masius. The northern part of this country was mountainous, and rich in grain, wine and pasturage; but the southern part was flat, dry and unfruitful. The principal cities were Charran, or Charræ, Edessa, Zoba (Nisibis), Antioch, Mygdoniæ, and Singara. This country has always been inhabited by husbandmen, who lived a settled life, and by shepherds, who wandered from place to place. The Mesopotamians sprang from the Chaldeans, the primitive inhabitants, from the Cushites, who, in the reign of Nimrod, built the cities of Edessa and Nisibis, and from the descendants of Shem, of the tribe of Thara. The latter first inhabited the region around Ur Chasdim, and then dwelt in and around Haran or Charræ; but, in process of time, they spread throughout the whole country, even into Chaldea and Syria, so that the Cushites were compelled either to retire before them or submit to them. It was originally a part of Nimrod's dominion. After an interval of more than 700 years (B. C. 2000), Kusan Rischataim reigned in Mesopotamia, who extended his dominion over the Euphrates. The Israelites, who then possessed Palestine, were compelled to pay him tribute for the space of eight years. In the golden age of the Assyrian power (790 years B. C.), Mesopotamia was entirely subjected to that empire, and suffered the fate of its subsequent conquerors. Trajan subjected it to the dominion of Rome, A. D. 106, but the Persians did not suffer her to remain long in undisturbed possession of it. When the Arabs, in 651, established a new empire upon the ruins of the kingdom of the Sassanides, Mesopotamia was also obliged to submit to the storm. In the year 1040, it fell into the hands of the Seljooks. From that time it had many rulers, in rapid succession. Genghis Khan made himself master of it in 1218, but, in the year 1360, it fell into the hands of Tur Ali Bey. 40 years afterwards, Mesopotamia was conquered by Tamerlane, and, in 1514, Ismael Sophi incorporated it with the Persian empire. The Persians were, however, in 1554, compelled to cede more than half of it to the Turks; and though they again, in 1613, recovered the lost portion, they were unable to withstand the attacks of Amurath IV, who united this, in 1637, with many other provinces, to his empire. The present extent of this country is computed at about 36,000 square miles, with 800,000 inhabitants. The capital, Diarbekr, situated on the Tigris, with 38,000 inhabitants, a considerable manufacturing and commercial city, is the seat of a sangiack. (See J. S. Buckingham's *Travels in Mesopotamia*, [*Aleppo*, *Diarbekr*, *Mosul*, *Bagdad*, *the Ruins of Babylon*, &c.] London, 1827, quarto).

Mess, in sea language, denotes a particular company of the officers or crew of a ship, who eat, drink and associate together, whence *messmate*, one of the number thus associated. In military language, *mess* denotes a sort of military ordinary, for the maintenance of which every officer, who takes his meals there, gives a certain proportion of his pay. These associations of officers, in the English armies, exist not merely in time of peace, but even in the field; and foreigners are surprised at the degree to which the national love of comfort prevails, even amid the fatigues of service, leading the officers to carry with them loads of table equipage, thereby adding to the cumbrous baggage of an English army. In all the descriptions of the English military life, the mess is conspicuous; and it may easily be imagined that these social meetings, when the toils of service are suspended, and the pleasures of the table are heightened by music; when the restraints of military etiquette are relaxed, and a soldier-like frankness prevails; when the young express their hopes, and the older relate their experiences,—are among the bright spots of British military life. Several armies, particularly the Prussian, have attempted, in time of peace, to imitate the English mess, but without being able to copy it fully.

Messa di Voce (*Italian*) signifies, in music, the gradual swell and diminishing of the tones. It takes place in notes of long duration, especially upon *fermates* (q. v.), and in the preparation of a cadence. On the duration of the note, the gradation in the *piano*, *crescendo*, *forte* and *decrescendo* must depend. In shorter notes, less gradation takes place. The *messa di voce* requires the singer to have his breath entirely under his control. If well executed, it has a very fine effect; but it is not to be confounded with the erroneous practice of many singers, to begin every tone *piano*, and gradually to increase in strength; neither ought it to occur too frequently.

Messalians (in the Syriac), or Euchetes (in Greek, that is, *praying people*), also Enthusiasts, and Pneumatists (as they called themselves); the members of a heretical sect, which arose in Mesopotamia about the year 360, and was introduced by Adelphius (one of their teachers), in the fourth century, into Syria. The Messalians insisted upon the incessant exercise of prayer, which they considered as alone sufficient for salvation. They did not labor, but supported themselves by begging, and gave themselves up to fanciful speculation, which explains both their confused notions of Christianity, founded on Oriental mysticism, and resembling Manicheism, and also their expectation of being able by prayer to arrive at such a degree of perfection that in it all sin would be of necessity removed. With this are also connected those ascetic, and, in part, indecent excesses and strange convulsions, of which they were accused, those divine revelations and visions, of which they boasted, and their contempt of the church. Notwithstanding the opposition and denunciations of councils, emperors and bishops, Messalians of both sexes continued to exist, although not in large numbers, among the Oriental Christians, till the end of the seventh century. The modern Messalians, or Bogomili, who are often improperly confounded with this sect, are more nearly connected with the Paulicians. (q. v.)

Messalina, 1, Valeria. This notorious Roman empress, the daughter of Messala Barbatus, and wife to the emperor Claudius, has left behind her the infamy of having surpassed, in licentiousness, the most abandoned women of any age. She had all the males belonging to the household of the emperor for her lovers; officers, soldiers, slaves, players—nothing was too low for her. Not satisfied with her own shame, she even compelled the most noble Roman ladies to commit, in her presence, similar excesses. Whosoever did not comply with her wishes she punished with death. She at length went so far as, during the lifetime of her husband, publicly to marry Caius Silius, a senator. Narcissus, a freedman and favorite of the emperor, formerly a paramour of the empress, discovered to Claudius, who was then absent from Rome, this new act of infamy on the part of Messalina. But Claudius delayed to punish her, and Narcissus, seeing that his own life was at stake, if the empress should succeed in recovering the favor of her weak and infatuated husband, gave orders to his friends to murder her secretly (A. D. 46).—2. Statilia Messalina; the third wife of Nero, on whose death she returned to private life. She then devoted herself to the study of eloquence and the fine arts, and acquired some celebrity.

Messana. (See *Messina.*)

Messe Concertate (*Italian*); masses in which the recitation is intermixed with choruses.

Messe di Capella; an expression applied by the Italians to masses sung by the grand chorus. In these compositions, various fugues, double counterpoints, and other elaborate qualifications, are always required.

Messenia; a country of ancient Greece, in the southern part of the Peloponnesus. Its capital was Messene (Mavromati), with the mountain fortress Ithome; Mothone (Modon), Korone (Coron) and Pylos (Navarino), with the strong-hold Pheræ, now Calamata, were its principal ports. On its southern coast lay the Messenian gulf (now the gulf of Coron). A ridge of mount Taygetus separated Messene from Sparta. Messenia is celebrated for the long struggle of its inhabitants with the Lacedæmonians, in defence of their liberty. In the first Messenian war (743—724 B. C.), the Lacedæmonians with the Athenians invaded Messenia, notwithstanding the proposal of the Messenian king to submit their differences to the arbitration of the Areopagus, or the Amphictyonic council. For 20 years, the Messenians defended themselves valiantly, under their king Aristodemus, who, in consequence of an answer of the Delphic oracle, which promised them the victory on condition of the sacrifice of a virgin of the royal family, offered his own daughter as the victim. Her lover, to save her life, declared her to be pregnant by himself, and Aristodemus, to prove her innocence, stabbed her with his own hand, and caused her to be opened and sacrificed. The Messenians, though for some time successful, were finally obliged to submit by the loss of Ithome. About 40 years after, they again rose; and thus commenced the second Messenian war (685 B. C.), which ended in their subjugation. (See *Aristomenes.*) A part of the Messenians are said to have emigrated to Sicily, and there to have founded Messana (see *Messina*), on the site of the ancient Zancle (668 B. C.). After 200 years of servitude, the Helots (q. v.) and Messenians took up arms. This third Messenian war lasted ten years (465—455 B. C.), and resulted in the expulsion of the Messenians from the Peloponnesus. Epaminondas restored them. They rebuilt Messene (369 B. C.), and maintained their independence till the country was conquered by the Romans. The Messenians remained true to their customs, manners and language, through all changes of fortune. Delavigne (q. v.) has called his elegies *Messeniennes.* In modern Greece as organized since the revolution, two of the seven departments of the Morea, in the south-western part of the peninsula, have received the names of *Upper Messenia* and *Lower Messenia.*

Messenius, John, born at Wadstena, in East Gothland, in 1584, was a Swedish historian. He was in the confidence of the great Gustavus Adolphus (q. v.), and became professor of law and politics at Upsal. His fame exposed him to envy, and his enemies accused him, in 1615, of corresponding secretly with the German emperor Sigismond, on which he was sentenced to imprisonment for life. He died in confinement, in 1637. Of his writings, the principal is *Joan. Messenii Scondia* (not Scandia) *illustrata, seu Chronologia de Rebus Scondiæ, hoc est Sueciæ, Daniæ, Norwegiæ,* &c. (Stockholm, 1710, 14 vols., folio). His son Arnold was executed in 1651, on account of a libel against the queen and the senate. This libel was written by John, son of Arnold, who was then but 17 years old. The father, however, had been accessary to it. John shared his fate.

Messiah; a Hebrew word, signifying the *anointed;* in the Greek translation *χριστος*, whence *Christ.* In the Old Testament, the word is applied to the whole Jewish people, to the priests, to the kings ("the Lord's anointed"—in the original, "Messiah"), and even to Gentile kings. In the books of the prophets, however, it began to be applied, by way of eminence, to the Savior and Redeemer of the Jewish nation, and, in this sense, is used in the New Testament, with the extension of its meaning so as to signify the Savior of all men. The Jews deny that the Messiah is yet come, and still expect the restoration of their state and nation from his arrival. (See *Jews*, and *Jesus*.)

Messier, Charles, an astronomer, born at Badonviller, in Lorraine, in 1730, went to Paris at the age of 20, and was employed by the astronomer Delille, in copying and drawing maps. Delille, who was struck with his zeal in the study of astronomy, obtained a situation for him, and, in 1758, the observation of the comet, which then occupied the attention of astronomers, was intrusted to him. He was one of the first to discover the comet whose return Halley had predicted in 1759; and he carefully observed the newly-discovered planet Uranus. A telescope, a quadrant, and a pendulum, were his only instruments. His sight was remarkably keen, and enabled him to discover objects of search before other observers. The revolution deprived him of his former appointments, but he continued his observations through the reign of terror, and was afterwards appointed a member of the institute, of the board of longitude, and of the legion of honor. He died in 1817, at the age of 86. His observations are contained in the *Mémoires* of the academy, and in the *Connaissance des Temps*.

Messina (anciently *Messana*); a city on the eastern coast of Sicily, lying on the strait called the *Pharos of Messina*, with a safe and commodious harbor; lat. 38° 11′ N.; lon. 15° 34′ E. It is the see of an archbishop. The streets are broad, well laid out, and paved with lava, cut into blocks two feet square. Since the earthquake of 1783, the houses have been rebuilt, of fewer stories. The population is 55,000; 30 convents and about 60 churches, four seminaries of education, several asylums for the poor, hospitals, and *monti di pietà*, a senate-house, a royal and an episcopal palace, are among the public buildings. It has an extensive transit trade between Italy and the Levant, and exports silks, wines, oil, fruits, wool, &c. The cathedral is dedicated to the virgin, who is the patroness of the city, under the title of *Madonna della Lettera*, and contains a letter in the hand-writing of the virgin to the Messinians, a lock of her hair, an arm of St. Paul, and the skull of Mary Magdalen! The city was ravaged by the plague in 1743, and almost entirely destroyed by an earthquake in 1783. (See *Sicily*.)

Mestizos, or Metis (Spanish, *mixed*). In countries where Spanish Europeans have settled and intermingled with the natives, the descendants are called *Mestizos*. In Mexico, the European Spaniards were called *Chapetones*, or *Gachupines*. The pure descendants of Europeans are called *Creoles* (q. v.), in similar countries. The *Mestizo* is described as having a transparent skin, a thin beard, small hands and feet, and a certain obliquity of the eyes. If a Metis marry with a white, the fruits of the union differ but slightly from a European.

Mesto (*Italian*); a term significative of a pathetic and melancholy style of performance.

Mestre de Camp; formerly the title of the commanding officer of a regiment of cavalry in the French service. He was distinguished by this appellation on account of there being a colonel-general in the cavalry. The chief of a regiment of infantry was also formerly so called.

Mesue; a name given to the author of several ancient Arabic works on medicine, which were early translated into Latin. They are founded on the principles of Galen, and enjoyed great authority for a time, in the middle ages, and were commented upon down to the sixteenth century. There is much uncertainty respecting the name itself, and the life of the author. It seems necessary to suppose the existence of two physicians of this name, an elder one, who was body physician to the famous caliph Haroun al Raschid (q. v.), and to several other caliphs, and died at Bagdad about A. D. 851. Haroun al Raschid, and his successor, Almamon, employed him to translate several works from the Greek. The younger Mesue was born in the eleventh century. He is said to have been a Christian, and a pupil of Avicenna. His works on medicine, translated into Latin, were common text-books in the medical schools of the middle ages, and were commented upon as late as the seventeenth century.

Mesurado, Cape. (See *Liberia*.)

Meta; a Greek preposition (μετά) of a great variety of meanings. It is used in numerous compound words, which have been adopted in English, and, in this case, generally means *with*, *over*, *beyond*, *after*.

Metal; the most numerous class of undecompounded chemical bodies, distinguished by the following general characters: 1. They possess a peculiar lustre, which continues in the streak and in their smallest fragments. 2. They are fusible by heat, and in fusion retain their lustre and opacity. 3. They are all (except selenium) good conductors, both of electricity and caloric. 4. Many of them may be extended under the hammer, and are called *malleable;* or under the rolling-press, and are called *laminable;* or drawn into wire, and are called *ductile.* 5. When their saline combinations are electrized, the metals separate at the negative pole. 6. When exposed to the action of oxygen, chlorine, or iodine, at an elevated temperature, they generally take fire, and, combining with one or other of these three elementary dissolvents, in definite proportions, are converted into earthy, or saline-looking bodies, devoid of metallic lustre and ductility, called *oxides, chlorides,* or *iodides.* 7. They are capable of combining in their melted state with each other, in almost every proportion, constituting alloys. 8. Most of them combine, in definite proportions, with sulphur and phosphorus, forming bodies frequently of a semi-metallic lustre; and others unite with hydrogen, carbon and boron, giving rise to peculiar gaseous or solid compounds. Their names are as follows: 1. platinum, 2. gold, 3. silver, 4. palladium, 5. mercury, 6. copper, 7. iron, 8. tin, 9. lead, 10. nickel, 11. cadmium, 12. zinc, 13. bismuth, 14. antimony, 15. manganese, 16. cobalt, 17. tellurium, 18. arsenic, 19. chromium, 20. molybdenum, 21. tungsten, 22. columbium, 23. selenium, 24. osmium, 25. rhodium, 26. iridium, 27. uranium, 28. titanium, 29. cerium, 30. potassium, 31. sodium, 32. lithium, 33. calcium, 34. barium, 35. strontium, 36. magnesium, 37. yttrium, 38. glucinum, 39. aluminum, 40. zirconium, 41. silicium, 42. thorinum.* The first 12 are malleable, and so are the 30th, 31st, and 32d, in their congealed state. The first 16 yield oxides, which are neutral, salifiable bases. The metals 17, 18, 19, 20, 21, 22 and 23 are acidifiable by combination with oxygen. Of the oxides of the rest, up to the 30th, little is known. The remaining metals form, with oxygen, the alkaline and earthy bases.

Metalliques; a kind of Austrian stocks, so called because the interest is paid in the precious metals, and not, like the interest of other stocks, in paper money. The name was afterwards used also in other countries, for instance, in Russia, for stocks of a similar kind.

Metalloid, in chemistry; a name given at first to the metals which have been obtained from the fixed alkalies and some of the earths. These bodies, having been found to be completely metallic, are now classed with the other metals, and no distinction is necessary.

Metallurgy, Metallurgic Chemistry, is that part of chemistry which teaches the combinations and analyses of metals. It has been much cultivated of late.

Metamorphosis (from the Greek μετα (see *Meta*) and μορφή, the form); a change of form, used also for an entire change of the subject. The active imagination of nations in an early stage of history, indulges itself in representing metamorphoses of men, beasts, plants, stones, &c., and these productions of youthful imagination enter into their religion, philosophy, poetry (generally at first identical). Surrounded by the constant metamorphoses of nature, and seeking, as man always does, to connect effects and causes, yet unable, from his limited knowledge, to satisfy his desires, he is led to ascribe many changes, which riper ages find to be the consequences of eternal laws, to sudden metamorphoses. To these he resorts to explain the mysteries of his present condition (which perplex the mind of man in the infancy of society as well as in advanced cultivation), and, by a series of metamorphoses, accounts for the undefinable connexion between man, nature and providence. To all this we must add the great interest which attends the story of metamorphoses. Even in this reflecting age, in which cool understanding seems to have acquired the ascendency, who can read, without interest, the tales of strange transformations contained in the Arabian Nights—those wild productions of a creative imagination? Of the metamorphoses of the Greek mythology, while some startle the sober taste of our age, others belong to the sweetes productions of poetry. The popular belief in metamorphoses has by no means subsided entirely in all Christian countries. In natural history, the word *metamorphosis* is used sometimes for any change in the organization of matter, as, for instance, the transformation of food or rain into animal or vegetable organic substances, but more particularly for those sudden changes in the form of things, which are obvious and interesting even to ordinary observation, as the change of the pupa into a butterfly.

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* To this list we must now add vanadium, a new metal, just discovered by Sestrom, director of the iron mines of Fahlun, in Scandinavia.

Metaphor (Greek, *μεταφορά*, from *μετα*, a preposition often signifying in compound words, *over*, and *φέρω*, I carry); a figure of rhetoric, by which a word is transferred from the subject to which it properly belongs, and applied to another which has some similitude to its proper subject, with a view to give impressiveness to the latter. The metaphor may be merely in an epithet or an auxiliary term, as "winged haste," the "spring of life," &c., or in the main subject of a sentence, as when a hero is called a *lion*, a minister a *pillar of the state*, &c. In respect to the points of comparison, the metaphor may either put something animate or intellectual for something inanimate and material; for instance, "the wrath of the sea," "the bountiful earth," to represent nature as if endowed with will; or, *vice versâ*, may substitute the physical for the spiritual, as, "the stars of his merits will shine from the night of the grave." As the impressions which we receive through the senses are the liveliest, the designation of things spiritual by images taken from the material world may often produce a striking effect. Thirdly, a metaphor may consist in the transfer of a term from one thing to another, falling under the same great division of material or spiritual, but substituting the more familiar for the less, as when we speak of the "silver moon." Brevity and power are the characteristic excellences of the metaphor; novelty shows the original wit. Unexpected contrast may produce an effect sublime and ridiculous in the highest degree. Jean Paul, in his *Vorschule der Aesthetik* says, "The metaphor is the proof of the unity of both worlds (spiritual and physical). The metaphors of all nations are similar, and none calls error light, or truth darkness." Liveliness of conception, comprehensiveness of view, and activity of imagination, are necessary to produce good metaphors, which often produce great effects, sometimes to the prejudice of sober reasoning. He who wishes to study metaphors must read the Old Testament and Shakspeare. A slight consideration will show us how constantly we speak in metaphors, and that we convey most abstract ideas by metaphors of the second kind; thus, He is *cold* towards me, He is *large minded*, &c. It is maintained by many, that all language began by the designation of objects and actions affecting the senses, and that when the mind began to abstract, man was obliged to use his stock of words for abstract ideas, so that all words, if we had the means to trace them, would be found to refer originally to things material, which it cannot be denied, is often the case. In the speculative sciences, morals, metaphysics, politics, &c., metaphors, instead of being confined to the rank of illustrations, have often been treated as if they had an independent meaning, and have been made the foundation of reasonings. No philosophy deserves this reproach more severely than the most recent philosophy of Germany, which often takes ingenious metaphors as explanations of truth.

Metaphysics. What am I? What is all that surrounds me? What is mind, soul, existence, perception, feeling, thought? What is evil? What is time, space, cause, effect? What is truth? What is necessity? What is freedom? Can we know any thing with certainty? Questions of this character are continually suggesting themselves to the mind of man. It is one of his distinguishing characteristics to look for causes, and to establish relations among the numberless phenomena around him, and within him; to separate the generic from the special, and to reduce the whole system of things to harmonious order. His acquisitions and advancement are all owing to this disposition, ineradicably planted in his soul by his Creator. The rudest speculations of uncivilized man, and the profoundest systems of philosophy, are alike proofs that this desire cannot be extinguished, this anxious feeling cannot be lulled into apathy. All investigations relating to these great questions belong to what has been called, though arbitrarily, *metaphysics*. Such speculations it is neither possible nor desirable to check, though they may result in but distant approximations to truth. Revealed religion does not attempt to repress them, and even if the end of the whole should be that the search was vain, this itself would be a fact of the highest interest. A man who contemns metaphysics must think his own nature unworthy of examination. Metaphysical inquiries, indeed, have often been disfigured with overstrained subtilty and revolting sophistry, and too often arbitrary analogies, bold comparisons, and unmeaning mysticism have claimed and received homage as having unlocked the long hidden truth; but the same has taken place in regard to religion and politics, and all the great subjects which strongly stir the soul of man. In a historical point of view, all these aberrations, and even absurdities, mournful as they may be, are interesting.—Among the writings of Aristotle, on natural subjects, are some which treat particularly of the original causes of all existence. When the various treatises of that philosopher were first arranged by his commentators, the latter received a place after the others, and, not having a special title, were designated in the older manuscripts as τὰ μετὰ τὰ φυσικά, that is, *after the treatises on nature;* and of this the schoolmen formed the barbarous word *metaphysica;* and as the subjects which Aristotle treats in these chapters are purely speculative, metaphysics was considered the science of general speculation, and of things placed beyond the reach of the senses. This science was not new; its elements were spread through all philosophical systems; and that which bears the name of Aristotle, being but a collection of considerations on the principles of things, on general terms, axioms, causes, the properties of existence, substance, matter, motion, space, time, God, the immaterial and eternal intelligences who preside over the movement of the heavenly spheres, forms but part of it; for *metaphysics* comprehends every thing which can occupy the human mind, God, nature, the soul, and all the conceptions which result from the rational exercise of our faculties. Few philosophers have embraced the whole of the vast domain of metaphysics; generally they have attached themselves to one of its parts, and have treated it according to their different genius. Some have abandoned themselves to the promptings of a lively and exalted imagination; others have devoted themselves to a cool analysis; some have employed themselves in speculation, others in observation; and in regard to observation, some have confined themselves mostly to facts perceptible by the senses; some to the phenomena within us, moral and intellectual. We do not mean that any class has exercised itself exclusively in either of these ways, but each has had a favorite path, to which the others were subordinate. Thus the Oriental philosophy observes little, reasons freely, analyzes not at all, and imagines constantly. It creates and sets in action supernatural beings, suggests mysterious causes and arbitrary analogies, and peoples space with spirits standing between God and men. The dogma of the two principles and the system of emanations form the basis of this theological philosophy. Traces of these sublime visions appear in the metaphysics of Pythagoras and Plato. Aristotle, in the treatises above mentioned, generally gives what other philosophers have said respecting subjects lying beyond the reach of our senses, and often only hints at what is to be sought, without declaring that it is found. The great authority which Aristotle enjoyed in the middle ages, and the little actual knowledge respecting the laws of existence, induced his pretended followers to form from his philosophical fragments what they thought a connected and well founded system, which served as a canon for the philosophy of the time. Even the oldest commentators of Aristotle directed their endeavors to this point; but metaphysics, as an independent science, was developed by the schoolmen of the middle ages (Thomas Aquinas, Duns Scotus, William Occam, and others), and was cultivated (if, indeed, this word can be given to their way of treating science) so much the more as all other sciences had been forgotten. Not until the seventeenth century was the metaphysics of the schoolmen undermined by the introduction of critical spirit of investigation. Lord Bacon, More, Hobbes, appeared in England; Th. Campanella, in Italy; Descartes, in France, as adversaries of the Aristotelian school-philosophy. More details and a continuation of the historical sketch will be found in the article *Philosophy, Intellectual*, as well as some account of the most important systems of metaphysics. It has become customary to designate the theoretical principles of any branch of knowledge as the *metaphysics* of a science. The French, in particular, have considered metaphysics in this light, and have been in the habit of despising abstract speculation, though a different spirit seems to have arisen among their latest philosophical writers.

METAPONTUS; a son of Sisyphus, who married Theana. (See *Theana.*)

METASTASIO, Pietro Antonio Domenico Buonaventura; born at Assisi, 1698. His true name was Trapassi, and his father was a common soldier. His poetical talents were early awakened, particularly by the reading of Tasso, and, while yet a child, were displayed in making rhymes, and in improvisations: the latter, however, he was soon obliged to renounce, on account of his sensibility to nervous excitement. The celebrated Gravina, who accidentally became acquainted with his talents, took him under his protection, called him (by a translation of his name into Greek) *Metastasio*, paid great attention to his education, and, on his death, in 1717, left him his whole estate. The young poet, being thus placed in an easy condition, devoted himself to his favorite study, and, under the guidance of the celebrated singer Maria Romanina (afterwards Bulgarelli), created the modern Italian opera. He had already produced an opera, *Il Giustino*, in his fourteenth year. In 1724, he began his career as a dramatic poet, with the *Didone abbandonata*, which was brought out at Naples with Sarti's music, and in which he is thought to have depicted his own connexion with Romanina. His success was such that Charles VI invited him to Vienna in 1729, and appointed him poet laureate (*poeta cesareo*) with a pension of 4000 guilders. Thenceforward no gala took place at court which was not graced by his verses. Ferdinand VI of Spain, who was delighted with his operas, in which Farinelli (q. v.) performed, sent the poet a flattering token of approbation. Metastasio constantly declined all the distinctions which Charles VI and Maria Theresa were desirous to confer on him, and died in 1782. Pius VI, who was then at Vienna, visited him in person, and sent him his apostolical benediction *in articulo mortis*. The most important of Metastasio's works are his operas and musical cantatas, which have appeared in numerous editions. A ninth edition of his *Opere drammatiche* was published in Venice in 1748; a better edition is that of Turin (1757, 14 vols.). His complete works, published in Venice (1781, 16 vols.) contain his life. His *Opere posthume* appeared at Vienna (1795, 3 vols.). Metastasio's purity, clearness, elegance and grace of style, the harmony, sweetness, ease, and expressive rhythm of his *arie*, canzonets and songs, have rendered him a classic among the Italians. No poet, perhaps, has ever possessed in a higher degree the power of embracing the most essential circumstances of a poetical situation in a narrow compass. The songs, with which his personages retire, are almost always the most concise and natural expression of the state of the feelings. His representations of the passions are, however, general; his pathos equally destitute of individual character, and of general contemplation. He is throughout musical, and never picturesque. His melodies are light and pleasing, but are frequently repeated with little variation: when one has read several of his pieces, one is acquainted with all. The gallantry of his heroes and the fondness of his heroines are, perhaps, less to be blamed than the choice of subjects whose serious character makes trifling out of place. His tragic attempts failed. His astonishing success through all Europe, and particularly at courts, was owing partly to his being not only in office, but in manner, a court poet. Brilliant and superficial, arraying prosaic thoughts in a poetical style, always preserving a courtly elegance, with a constant observance of the conventional proprieties of high life, he could not fail to please in the courtly world. Few of his operas have maintained a place on the stage, on account of the change in the musical taste.

Metastasis, in medicine; the transfer of a disease from one part of the body to another, or such an alteration as is succeeded by a solution.

Metaurus; a town with a small river of the same name in the country of the Bruttii. The river Metaurus falls into the Adriatic.

Metelin. (See *Lesbos.*)

Metella; the wife of Sylla.

Metelli; the surname of the family of the Cæcilii, at Rome, the most known of whom were a general, who defeated the Achæans, took Thebes, and invaded Macedonia, &c.; *Q. Cæcilius*, who rendered himself illustrious by his successes against Jugurtha, the Numidian king, from which he was surnamed *Numidicus*. He took, in this expedition, the celebrated Marius (q. v.) as his lieutenant, and soon had cause to repent of the confidence he had placed in him. Marius raised himself to power by defaming the character of his benefactor, and Metellus was recalled to Rome, and accused of extortion and ill-management. Marius was appointed his successor to finish the Numidian war, and Metellus was acquitted of the crimes laid to his charge before the tribunal of the Roman knights, who observed that the probity of his whole life, and the greatness of his exploits, were stronger proofs of his innocence than the most powerful arguments.—Another, who saved from the flames the Palladium, when Vesta's temple was on fire. He was then high priest. He lost his sight and one of his arms in doing it, and the senate, to reward his zeal and piety, permitted him always to be drawn to the senate-house in a chariot, an honor which no one had ever before enjoyed. He also gained a great victory over the Carthaginians, &c.—*Q. Cæcilius*, a general who conquered Crete and Macedonia, and was surnamed *Macedonicus*.

METEMPSYCHOSIS (Greek, from μετα, beyond, εν, in, and ψυχοω, I animate); transmigration; the passage of the soul from one body to another.—*Metensomatosis* (from μετα, beyond, and ενσωματιζω, I embody) has a similar meaning. Generally the doctrine of transmigration of souls implies some change in the soul itself for better or worse, for purification or punishment. (See *Transmigration of Souls.*)

METEMPTOSIS, (from μετα, after, and πιπτω, I fall); a term in chronology expressing the solar equation necessary to prevent the new moon from happening a day too late.—*Proemptosis* signifies the lunar equation necessary to prevent the new moon from happening too soon.

METEOR. (Greek, μετεωρα, in the air.) The term *meteors* is often applied to all the phenomena which take place in the atmosphere, but is sometimes restricted to the appearances of luminous bodies flying or floating in the atmosphere, or in a more elevated region, including those brilliant globes or masses of matter which are occasionally seen moving rapidly through our atmosphere, and which throw off with loud explosions fragments that reach the earth, and are called *falling stones;* also those fire-balls which are usually denominated *falling stars*, supposed to be owing to gelatinous matter, inflated by phosphureted hydrogen gas (see *Falling Stars*); also the lights which appear over moist grounds and burial grounds, called *ignes fatui*, which are ascribed to the same cause. Falling stars appear under a variety of circumstances, but particularly in autumn and spring, when the sky is clear. Their size and brilliancy are variable. They always move with great celerity. They are higher than the region of the clouds, because they are never seen in a cloudy sky. Electricity, spontaneous combustion of matter in the atmosphere, or the incandescence of little globes of a nature similar to that of the bolides, are the agents to which philosophers in general, though without sufficient reasons, attribute the origin of these meteors, with the true nature of which we shall not become acquainted without more numerous and exact observations. Meteors, in the most general sense of the word, may be reduced to four classes—*igneous* or *fiery* meteors, including, besides those above mentioned, lightning, St. Elmo's fire; *luminous* meteors, as the rainbow, haloes, aurora borealis, zodiacal light, parhelia, or mock-suns, paraselenes, or mock-moons; *aqueous* meteors,—dew, hoar frost, mist, clouds, rain, snow, hail, &c.; and *aërial* meteors, as winds, water-spouts. It will be seen that these phenomena are of very different natures, and owing to different causes. The only connexion between them is that of a common medium, and we therefore refer to the separate articles for information concerning them; also to *Electricity.* (See also the articles *Meteoric Stones*, and *Meteorology.*)

METEORIC IRON. (See *Iron, Native*, and *Meteoric Stones.*)

METEORIC STONES, or **AEROLITES**, are solid, semi-metallic substances, which fall from the atmosphere. The descent of such bodies had been long reported; but the fact was not considered authentic till within a few years. The larger stones have been seen as luminous bodies moving with great velocity, descending in oblique directions, and frequently with a loud, hissing noise, resembling that of a mortar-shell when projected from a piece of ordnance; they are sometimes surrounded with a flame, tapering off to a narrow stream at the hinder part, are heard to explode, and seen to fly in pieces. Of course, these appearances have been observed only in the night; when the stones have fallen in the day time, the meteor has not been observed, but the report and the shower of stones only have been noticed. The same meteoric mass has often been seen over a great extent of country; in some instances, a hundred miles in breadth, and five hundred in length, which implies that they must have had a great elevation. Indeed, from various calculations, it appears, that during the time in which they are visible, their perpendicular altitude is generally from 20 to 100 miles; and their diameter has, in some instances, been estimated to be at least half a mile. Their velocity is astonishing. Though rarely visible for more than a minute, yet they are seen to traverse many degrees in the heavens. Their rate of motion cannot, according to calculation, be generally less than 300 miles in a minute. From the dimensions of these moving bodies, which certainly have not been overrated, since they have been known to illuminate, at once, a region of one or two hundred miles in extent, we are warranted in the conclusion that the stones which come to us from them, form but a very small portion of their bulk, while the main body holds on its way through the regions of the heavens. The velocity with which the pieces strike the earth is very great, frequently penetrating to a considerable depth, and when taken up, they have been found, in some cases, still hot, and bearing evident marks of recent fusion. Such falls have happened in cloudy as well as in clear weather, which leads to the belief that they are wholly unconnected with the state of the atmosphere. The most remarkable circumstance respecting them is, that they invariably resemble each other in certain easily cognizable characters, both as respects their external properties and chemical composition, so as to render it possible for a mineralogist or a chemist to recognise them with certainty, though he should have no information of their origin or fall. Those specimens in which earthy matter preponderates, resemble pretty closely certain varieties of the trachytic rocks, or ancient lavas, but they invariably contain, disseminated through their substance, an alloy of iron and nickel, which has as yet never been discovered among the productions of our earth. The earthy minerals of which they are composed, are feldspar, olivine and augite—the former greatly preponderating; and of metallic substances, besides the native iron, magnetic iron pyrites is a frequent ingredient. The alloy of iron and nickel often contains chrome, manganese and cobalt in minute proportions. This alloy varies in the proportion which it bears to the earthy matters, in stones which have fallen at different times: sometimes it is scarcely to be detected without the aid of the microscope; at other times it forms more than one half the bulk of the stone, and immense masses are found consisting entirely of native iron:—such masses are called *meteoric iron*, while the expression *meteoric stones* is applied more strictly to those in which the earthy minerals preponderate. These last are invariably coated, on the outside, with a thin, black incrustation, and have in general a spherical figure, in which we often observe indentations, similar to those which are presented by a mass that has been impressed with the fingers. These constant characters, as respects their fall, and chemical and mechanical composition, indicate a common origin, and have given rise to a variety of hypotheses to account for their phenomena. We can only hint at these hypotheses. Some attribute them to terrestrial, and others to lunar volcanoes. They have again been supposed to be concretions formed in the regions of our atmosphere; while others have considered them as small planets circulating about the sun or earth, which, coming in contact with our atmosphere, take fire from the resistance and friction which they meet with in passing through it.* With regard to the first supposition, viz. that these stones proceed from terrestrial volcanoes, it will be sufficient to observe, that no remarkable eruption has been known to have happened at or near the time of their fall, and that such bodies have been found at the distance of some thousand miles from any known volcano; besides, the immense force that would be necessary to project bodies of such enormous dimensions as these meteors are known to possess, far exceeds any force that we can conceive of, not to notice the want of similarity between meteoric stones and ordinary volcanic exuviæ. As to the theory that they proceed from volcanoes in the moon, it has a greater degree of probability. The same force that would project a body from the moon to the earth, would not, if it were exerted at the earth's surface, send the same body to the distance of ten miles, in consequence of the superior gravity of our planet and the density of the atmosphere. It is computed that a body projected from a favorable spot on the moon's surface,—say the centre of her disk opposite the earth,—with a velocity about four times that commonly given to a cannon ball, or 8220 feet per second, would carry it beyond the centre of attraction, and consequently into the sphere of the earth's activity; whence it must necessarily either fall to the surface of the earth, or circulate about us as a satellite. A body so projected from the moon to the earth, would take three days in its passage; which is not so long but that it might retain its heat, particularly as it is doubtful whether in passing through a vacuum, or very attenuated medium, it would be possible for the caloric to escape, not to say that it might acquire a fresh accumulation of heat, by passing through the denser parts of our atmosphere. Besides, eruptions, resembling those of our volcanoes, have been frequently observed in the moon; and her atmosphere is extremely rare, presenting but little resistance to projected bodies. This theory might perhaps be tenable if we had only to account for those showers of stones which come to our earth's surface; but these, it has been seen, are a very trifling part of the main masses from which they descend, and which are believed to be in some instances more than a mile in circumference. And since it is conceived that we experience a shower of these stones every few months in some part of the world, it is obvious that at this rate the whole mass of the moon must soon be shot away. Nor is this all. Among a number of bodies, thrown at random from the moon, it is not probable, that one in 10,000 would have precisely that direction and that rate of motion which would be requisite to cause it to pass through our atmosphere, without falling to the ground. With regard to the theory of these bodies being concretions formed in the air, there is one principal objection, viz. that the velocity with which they strike the earth, estimated by the depth to which they have been known to penetrate, is so great as to indicate their having fallen from heights far exceeding the limits of the terrestrial atmosphere. The remaining theory, especially that modification of it which conceives these meteoric masses to be terrestrial comets, appears encumbered with fewer difficulties than either of the others. The solar comets, it is well known, revolve round the sun in very eccentric orbits. In one part of their revolution, they sometimes come so near as almost to strike his body. They then move off, far beyond the orbits of all the planets; and in some instances are gone hundreds of years, before they return. The earth, it is imagined, in like manner, is furnished with its system of comets, whose size and periods of revolution are proportioned to the comparative smallness of the primary body about which they revolve, and which, like the solar comets, fly off in very elliptical orbits; and during the greatest part of their circuit are too far distant to be visible. In their approach to the earth, they fall within our atmosphere; by the friction of the air they are heated, and highly electrified, and the electricity is discharged with a very violent report, accompanied with the detachment of a portion of the mass, which descends in fragments to the earth. This hypothesis certainly accounts, in a very happy manner, for most of the phenomena attending the fall of aërolites. The velocity of the meteor corresponds with the motion of a terrestrial comet, passing through the atmosphere in an elliptical orbit. A body moving near the earth with a velocity less than three hundred miles in a minute, must fall to its surface by the power of gravitation. If it move in a direction parallel to the horizon, more than four hundred and thirty miles in a minute, it will fly off in the curve of a hyperbola; and will never return, unless disturbed in its motion by some other body besides the earth. Within these two limits of three hundred miles on the one hand, and of four hundred and thirty on the other (some allowance being made for the resistance of the air and the motion of the earth), the body will revolve in an ellipsis, returning in regular periods. Now, the velocity of the meteors, which have been observed, has generally been estimated to be rather more than three hundred miles in a minute. In some instances it is perhaps too great to suffer the body ever to return; but in most cases, it is calculated to be such as would be necessary in describing the lower part of an elliptical orbit.—Various lists of the periods, places and appearances of these showers of stones have been given from time to time in the scientific journals. The latest and most complete is that published in the first volume of the Ed. Phil. Journ., compiled partly from a printed list by Chladni, and partly from a manuscript one of Mr. Allan, read some years ago at the Royal Society of Edinburgh.

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* Since the discovery of Sir H. Davy, that the earths are metallic oxides, it has been suggested that the bases of the earths may originally exist in the meteor in the metallic state, and that when the body arrives within our atmosphere, a sudden and violent combustion is produced by the strong affinity of these metals to oxygen.

METEOROLOGY (from *μετεωρος*, raised in the air, and *λογος*, discourse); the science which treats of the phenomena which occur in the atmosphere, of their causes and effects. Men, in all conditions of society, are led by motives of necessity or comfort to study the indications of the weather in the different appearances of the skies. The mariner, the shepherd, the husbandman, the hunter, have the strongest motives to examine closely every varying appearance which may precede more important changes. The result of these observations forms a body of maxims, in which facts are often stated correctly, but mixed with erroneous deductions and superstitious notions, such as the credulity of ignorant people always renders them ready to adopt. Hence the disposition to refer the ordinary changes of the weather to the influence of the moon, and even the stars, and to look for signs of approaching convulsions, even in the moral world, in horrid comets and strange meteors. The progress of science, which tends to separate the casual precursors from the real causes of phenomena, refutes these false reasonings, dissipates the empty terrors to which they give rise, and aims, by more patient, long continued and wide extended observations, to deduce the general rules by which the phenomena of the atmosphere appear to be regulated. Meteorology borrows from chemistry her analysis to determine the composition of the air itself, and of the substances which it contains, and by which it is acted upon; the manner in which the different processes of evaporation, freezing, thawing, &c., go on, and how they affect the state of the atmosphere; the action of those invisible agents, light, heat, electricity, &c., and their tremendous effects. From physics meteorology takes the mechanical action of these and similar powers and substances, the weight and velocity of the air, the laws of the reflection, refraction, and motion of light, &c. By these aids this science explains the formation, fall or deposition of hail, snow, rain, dew, and frost (see these articles, and those on *Clouds*, *Evaporation*, *Freezing*, and *Caloric*); the action of thunder and lightning (see *Electricity*); the prevalence and properties of certain winds (q. v.); the effect of the position of a country and the nature of its surface on its climate and productions (see *Climate*, *Temperature*, and *Mountains*); the nature and causes of meteors (see *Meteors*, and *Meteoric Stones*), &c. To prepare the way for these and similar inquiries, it is necessary previously to determine the extent and constitution of the medium in which the phenomena take place (see *Air*, and *Atmosphere*), nd to indicate with precision, and observe with minuteness and accuracy, its precise condition at the time of their occurrence, by philosophical instruments. Some of these have long been known, but others are either of recent origin, or have received a more delicate construction from recent observers. The ordinary observations are generally confined to the weight and temperature of the air (see *Barometer*, and *Thermometer*); but other data are important, and have of late years received more attention than formerly. The dryness or humidity of the atmosphere (see *Hygrometer*); its brightness, or degree of illumination (see *Photometer*); the tint or shade of the cerulean hue of the sky (determined by the cyanometer, invented by Saussure); the variable disposition to chill the surface of the earth by impressions of cold transmitted from the higher regions (determined by the æthrioscope),—are all to be taken into consideration. The daily evaporation from the ground is to be measured by the atmometer; the quantity of rain which falls is to be registered by the ombrometer, or rain-gauge (q. v.); the amount of dew deposited should be observed (see *Drosometer*), and the direction, force and velocity of the wind indicated by the anemometer and anemoscope. (See Saussure's *Essais sur l' Hygrométrie*; De Luc's *Idées sur la Météorologie*; Cotte's *Traite de Météorologie*; Lampadius's *Grundriss der Atmosphärologie*; article *Meteorology* in the Encyclopædia Metropolitana (1830, second division); Daniell's *Meteorological Essays and Observations.*) The value of a meteorological register depends on the accuracy with which it is kept. The observations should be made in a place rather elevated, and exposed freely on all sides to the aspect of the sky, and should be repeated either at equal intervals during the day and night, or, at least, at those hours which represent most nearly the mean state of the atmosphere. The position and exposure of the place should also be made known. These requisites are seldom attained, and very few registers of the weather are entitled to much confidence. Accurate observations, made in all parts of the world, and in a regular and scientific manner, are yet necessary for the systematic classification of all meteorological phenomena into a complete science.

Method; a convenient arrangement of things, proceedings, or ideas; in logic and rhetoric, the art or rule of disposing ideas in such a manner that they may be easily comprehended, either in order to discover the truth, or to demonstrate it to others. Method is essential to science, and gives to our knowledge its scientific character. Scientific authors make use of different methods, according to the object which they have in view. The apparently strictest is the mathematical, which is capable of giving the greatest possible clearness to its theorems by a series of explanations and deductions; but it ought to be observed that this method is only adapted to a science which has to do with numbers and magnitudes, and has had unfortunate consequences when nothing was considered true but what could be mathematically proved, and when the mathematical method was applied to intellectual philosophy. Methods have made epochs in philosophy, proceeding from the spirit of the systems to which they were applied. Thus there are the *sceptic* method (see *Scepticism*), the *critical* method (see *Kant*), and the *dogmatic* method, which, in philosophy, is the method that starts from acknowledged general principles,—all of which are limited and partial. The truly philosophical method is determined by the nature of the science. As to the way of proceeding, the method may be analytical (i. e. it starts from particular cases, and seeks from them to deduce general causes) or synthetic (i. e. it infers the consequences from the causes); but it must always proceed from elementary principles admitted by all, with logical strictness, in order to remain scientific. The popular method starts from the well known and the individual, and is generally analytical. Orators, both lay and clerical, and teachers of youth, make use of this less scientific method. As to external form, the teacher may speak uninterruptedly (this is adapted for adults and academical lectures), or proceed by way of interrogation. In those branches the elements of which lie in the operations of the human reason, as in morals, mathematics and religion, the catechetical method will be found best, because it addresses the reason or heart of the pupil directly, and by questions calls into action the powers of his understanding. The catechetic method deserves the name of Socratic only when the teacher limits himself to directing, by his questions, the course of the pupil's thoughts, but allows the conclusions to be formed by the operation of the scholar's own mind. Every art and science requires its own method of teaching, which, indeed, should be accommodated to the individual characters of the teacher and pupil. In order to teach the first elements to many pupils, Lancaster's method will be always found useful. (See *Mutual Instruction.*) Pestalozzi strives, in his method, whatever the branch of instruction may be, always to keep in view the elevation of the whole being, the strengthening of all the powers, and, as far as possible, to make the pupil's own powers cooperate in the work of instruction. (See *Pestalozzi.*) A mistaken benevolence has at times undertaken to make all study amusing, and to beguile the pupil into knowledge without the necessity of laborious exertion on his part. Such a method, however, tends to prevent the developement of the faculties, and to unfit the mind to cope with difficulties. Private instruction requires different methods from public instruction; in fact, circumstances will constantly vary the methods of a skilful teacher.

Methodists; those defenders of the Catholic church who, in the 17th century, attempted to bring to a close the controversy with the Protestants, by new methods of reasoning; in later times, a religious sect which arose in the bosom of the English church in the early part of the 18th century. Some young men at Oxford united themselves together, in 1729, for the purpose of strengthening each other's pious resolutions, and observing the religious services with strictness. They aimed particularly at a more rigid compliance with the precepts of the New Testament than was usual in the church, and devoted themselves to works of love, such as instructing poor children, visiting the prisons, &c. Their more worldly fellow students, among other names indicative of their peculiarities, called them *Methodists*, on account of their methodical observance of the rules of religion and the regularity of their lives. This name was adopted by themselves, and has since been continued to their followers. Of the members of this small society, the principal were John Wesley (q. v), the founder, his brother Charles, and George Whitefield (q. v.), who joined it in 1735. In 1735, Wesley came out to Georgia, to engage in the conversion of the heathens. Here he remained two years, and, becoming acquainted with some of the Moravian Brothers, was much struck with their severe simplicity and pious devotion. (See *United Brethren.*) He then visited Herrnhut, after his return to England, and determined to model his own society somewhat after the same plan. Whitefield's preaching had already prepared the people for this undertaking. Wesley collected a small society in London, which held its conferences in a private house, without any disposition, at this time, to secede from the church. But the clergy of the establishment having refused their pulpits to the Methodist preachers who endeavored to gain over their hearers to their society, and the concourse of auditors being too great to be accommodated in any church, they began to preach in the open air, and to organize a separate church on the primitive apostolical model. The peculiar character of this field-preaching, which was distinguished from the philosophical indifference of that of the established clergy by its vehemence, religious enthusiasm and popular style, and which dwelt more on the fall and depravity of man, on the atonement, on the restoration through the merits of a crucified Savior, on repentance, and on regeneration, with all the eloquence which a sincere zeal could inspire, had a great effect in increasing the numbers of the society. Whitefield, the boldest and most zealous apostle of Methodism, in eloquence, courage and fire the

Paul of his sect, often collected hearers to the number of 12,000 in the fields, churchyards, and even at fairs, and, by the thunders of his eloquence and the terrors of his denunciations, produced such an effect upon his audience, that many of them were thrown into convulsions, and, amidst cries and groans of anguish, were turned to faith and holiness on the spot. These sudden conversions were considered as the outpourings of grace, and came to be considered by the Methodists as desirable results of their preaching. They soon, however, gave up the practice of field-preaching, and built houses of worship (tabernacles), partly to protect themselves from exposure to the weather, and partly to avoid the outrages which they experienced from the rabble. Although they suffered much from the violence of the populace, yet, as the government made no opposition, they now proceeded to the regular establishment of their church constitution, which was modelled on the plan of the Moravian Brothers, but divided into two distinct parties, the Wesleyans, or Armenians, and the Whitefieldians, or Calvinists. Their liturgy was that of the established church, with some alterations. It appears, from the Sunday Service of the Methodists of 1826, that the offices for the ordination of priests and deacons, and for the consecration of bishops, are altered into forms for the ordination of deacons, elders and superintendents; the 39 articles are, by omissions, reduced to 25; the Nicene and Athanasian creeds are rejected, the apostles' creed only being retained; and the apochryphal books of the Old Testament are rejected. In 1797, the *New Connexion*, as it is called, arose out of a separation from the Wesleyan establishment, on grounds of church discipline and government, and not of doctrine. Alexander Kilham was their head and founder. The steps by which the Wesleyan Methodists became a distinct religious body might have been anticipated. The societies collected in London and other places were divided into little companies of from 10 to 20 persons, called *classes*, and given in charge to a *leader*. The leader presided in a weekly meeting of his class for spiritual conversion and prayer, and received their charitable contributions. General meetings of the society were called *body bands;* and, as the persons who were employed to preach to them soon became regular preachers, the country was divided into *circuits*, consisting of the societies of a certain district. These circuits were under two or more preachers, one of whom was at the head of the circuit, with the name of *superintendent*. The *conference* consists of a certain number of the preachers, who meet annually to discuss the affairs of the connexion. The distinctive character of Methodism is to be sought for, not so much in its doctrines as in the application of them, which it endeavors to make for the purpose of producing strong excitement; and those whom it has awakened to a sense of their sins it subjects to a course of discipline intended to unite them closely with the connexion. The fruits of Whitefield's preaching were, perhaps, not less than those of Wesley's, his followers being about as numerous in England as those of the great patriarch of Methodism. The rise of Methodism, though it cannot be denied to have been attended with some irregularities and extravagances, was a revival of religion in England. Since the reformation there had been no such efforts made in the cause of religion; no preaching so awakening, so little sectarian; no preachers with more zeal, singleness of purpose and power of exhortation. It awoke the slumbering church from its lukewarmness and dissenters to more bold and united efforts of Christian zeal. It addressed the ignorant, the poor, the hardened, in such a manner as to interest their feelings and command their attention. It has done, and is doing, much to instruct as well as to excite them. It made its way at first through persecution and outrage, and, after spreading over its native country, it has established missions in the most distant parts of the old and new world, among the slaves of the West Indies and the savages of the South sea. (See Southey's and Moore's *Life of Wesley;* Crowther's *Portraiture of Methodism;* Gillie's *Life of Whitefield*; the works of Wesley and Whitefield.) At an early period of the history of the connexion, the attention of Mr. Wesley was directed to the British colonies of North America. In the Southern and Middle States, where sufficient provision had not been made to supply the spiritual wants of an increasing population, Methodism was particularly calculated to be eminently useful. It was introduced into those parts by preachers ordained by Wesley, and has spread extensively. Some difference in discipline and government was introduced into the American connexion, among which that of the Episcopal government was the principal. The first Methodist society was established at New York, in 1766, by preachers from Ireland, and after the revolution, the first bishop was consecrated. There are, however, some modifications in the church discipline of the Methodists in different parts of the Union. (For an account of American Methodists, see *Appendix*, end of this vol.)

Metis (Greek, μητις, wisdom); the mother of Minerva, daughter of Oceanus and Tethys, the wisest of gods and men. (See *Jupiter*, and *Minerva.*) Ritter thinks that the name of the Palus Mœotis is derived from her, and places her sanctuary at the mouth of the Borysthenes, where she was worshipped as the great mother.

Meto, or **Meton**, was a celebrated mathematician of Athens, who flourished 432 years B. C. In the first year of the eighty-seventh Olympiad, he observed the solstice at Athens, and published his cycle of nineteen years, by which he endeavored to adjust the course of the sun and moon, and to make the lunar and solar years begin at the same point of time. This is called the *golden number*, from its great use in the calendar. Meton was living about 412 B. C., for, when the Athenian fleet was sent to Sicily, he escaped a share in that disastrous expedition by counterfeiting insanity.

Metonymy; a figure in rhetoric, by which the name of an idea or thing is substituted for that of another, to which it has a certain relation. Such relations are *substance* and *quality*, *cause* and *effect*, *precedence* and *subsequence*, &c.; thus if we say, the tears of "joy," instead of the "joyous person," or respect for "gray hair," instead of "old age," or "olive-branch" for "peace," "stage" for the whole establishment connected with theatrical performances, &c. It is one of the most common figures in rhetoric.

Metope (μέτα, between, and ὀπὴ, a hole), in architecture; the interval or square space between the triglyphs, in the Doric frieze. The ancients were in the habit of ornamenting these parts of their buildings with carved works, or with paintings representing the heads of oxen, vessels, and other articles used in heathen sacrifices. The difficulty of disposing the triglyphs and metopes in symmetrical proportion may have been the cause of their omission in the Ionic and Corinthian orders.

Metoposcopy (from the Greek μέτωπον, the forehead, and σκοπέω, I observe); the pretended art of divining from the wrinkles of the forehead. The Romans, believing in every kind of divination, practised this, but not so much as the people of the middle ages. It seems singular that metoposcopy never was so much in vogue as chiromancy (q. v.), though there might be some possibility of divining, in part, the character of a man from his forehead and its wrinkles, while the lines in the hand have no connexion with it.

Metre; the French unit of measure. (See *France*, division *Decimal System.*)

Metre, in versification. (See *Prosody*, and *Rhythm.*)

Metropolitan is the Greek name of an archbishop. The chief place of a province is called, in Greek, *metropolis*, and, as the bishops of the chief places, or capitals, were distinguished by superior rank (see *Bishop*), they also received a distinguished title. The metropolitan is above the bishop, but below the patriarch. The title of patriarch, however, is in use only in the Eastern churches.—*Metropolitan church* is the archiepiscopal church.

Metternich, Clemens Wenceslaus Nepomuk Lotharius, count, since 1813 prince of Metternich, since 1816 duke de Portella, in Sicily, knight of the order of the golden fleece, privy-counsellor, minister of state, also minister of foreign affairs, with the title, since 1821, of imperial-royal house, court and state chancellor, in short, the Austrian *fac-totum*, was born May 15, 1773, at Coblentz, on the Rhine.* In 1788, he entered the university of Strasburg. At the coronation of the emperor Leopold II, he was one of the masters of ceremonies, after which he studied law at Mentz, until 1794, travelled to England, went to Vienna, became Austrian minister at the Hague, and married, in 1795, the countess Eleonore von Kaunitz, granddaughter of the famous prince Kaunitz. (q. v.) This lady was the heiress of the lordship of Austerlitz. She died March 19, 1825, at Paris. The prince then married Antonia, countess de Beitstein, who died Jan. 17, 1829; and he has since married the countess Melaina Zichy, daughter of count Zichy Ferrares. Prince Metternich began his diplomatic career at the congress of Rastadt, as minister of the college of the Westphalian counts. In 1801, the Austrian court appointed him minister at Dresden. He was the chief agent in uniting Austria, Prussia and Russia, by the treaty of Potsdam, Nov. 3, 1805, against Napoleon, for which he received the grand cross of the order of Stephen. The battle of Austerlitz, and the treaty signed at Vienna, by Haugwitz for Prussia with

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* His father, Francis George Charles, prince of Metternich, was born also at Coblentz, in 1746. He had several high employments in the Austrian service. At the congress of Rastadt, he was the principal commissioner of Austria, and, in 1810, in the absence of his son, was at the head of foreign affairs. He died Aug. 11, 1818.

France, blighted the fruits of the above-mentioned treaty. In 1806, count Metternich went to Paris as ambassador, in the place of count Cobenzl, where he was very active in promoting the interests of Austria, and where his diplomatic talents attracted the notice of the most influential persons. Oct. 10, 1807, he signed, at Fontainebleau, the convention, which put a stop to the disputes occasioned by the occupation of the *Bocche di Cattaro* (q. v.) by Russian troops, and which made the Isonzo the frontier of the kingdom of Italy. What he had begun in 1805 he continued in 1808 with rare activity and shrewdness. He never fully gave up his plans against France, because, whether republic or empire, the basis of the new order of things in France, was odious to him, firmly attached as he was to the old system of feudalism or aristocracy, of which Austria may be considered the most obstinate champion; and, as Metternich is the most influential man in Austria, he will be one of the most interesting personages of this age to the future historian. Metternich has followed his system with remarkable consistency and activity. He is the powerful agent of the holy alliance. (q. v.) Spain rose against France. Aug. 15, 1808, that public audience took place, in which Metternich withstood, for about an hour, the warm attacks of Napoleon, on the policy of Austria, which, he declared, would not leave him at peace. The campaign of 1809 broke out, and, shortly before the battle of Wagram, count Metternich arrived in Vienna, from which he proceeded to the court of the emperor of Austria at Comorin. Passports had long been denied him at Paris Count de Stadion resigned his place as Austrian minister of foreign affairs, July 9, and count Metternich was appointed, in October, in his place. He and the French minister Champagny conducted the negotiations for peace, at Hungarian Altenburg. The treaty was finally signed at Vienna, by prince Liechtenstein. Napoleon's proposal for the Austrian princess took place Feb. 7, 1810: Metternich accompanied the new empress to France. When the war in the north began, it was Austria's difficult task to manage affairs so that, in spite of all treaties and obligations, and the family relations, she should stand in a position to reconquer her former dominions, and set Europe free from French influence. Baron Fain, in the *Manuscrit de* 1813, attacks the conduct of Austria on this occasion. Metternich must be allowed to have displayed great talent in this critical state of things. Austria's "armed mediation" was acknowledged by Alexander and Prussia, after a conference of Metternich with the former at Opotschna. Invited by Napoleon to Dresden, Metternich arrived June 25, and here signed, June 30, a treaty, according to which France also acknowledged the mediation. Metternich conducted the mediation in Prague. But the negotiations for peace not having been opened by the term fixed, Aug. 10, Metternich drew up, in the night of the 10th, the declaration of war, on the part of Austria, against France; and, on the morning of the 11th, the Russian and Prussian troops marched over the Bohemian and Silesian frontier. Sept. 9, 1813, Metternich signed the quadruple alliance at Teplitz. On the evening of the portentous battle of Leipsic, the emperor of Austria bestowed on him and his heirs the dignity of prince. He was active in the negotiations at Frankfort, Freiburg, Basel, Langres and Chaumont. He directed the negotiations at the head-quarters of the emperor Francis, during the congress of Chatillon (q. v.), and, from Dijon, the negotiations with Monsieur (Charles X), who had arrived at Nancy. He proceeded to Paris, signed the convention of Fontainebleau with Napoleon, and, May 30, the peace of Paris, after which he was sent to London. The university of Oxford conferred on him the degree of doctor of laws. Oct. 8, 1814, the congress of Vienna was opened, and the presidency was unanimously assigned to him. With Talleyrand and Wellington, he proceeded to the king of Saxony, then at Presburg, in order to effect peace between Saxony and Prussia, by obtaining a cession of territory from the former to Prussia. He was again Austrian plenipotentiary at the second peace of Paris, Nov. 20, 1815, then at Milan, to conclude the treaty with Bavaria, which was ratified April 14, 1816. In 1817, he accompanied the Austrian princess, destined for the Portuguese prince-royal (don Pedro), to Leghorn, and then negotiated with the Roman see. In 1818, he was Austrian minister at Aix-la-Chapelle (q. v.); in 1819, he presided at the congress of Carlsbad (q. v.), and, in January, 1820, directed the ministerial negotiations (see *Congresses*) for the completion of the act of the German confederacy, and the adoption of measures against the liberals. He presided at Troppau (q. v.) and Laybach. (q. v.) He afterwards went, on the invitation of the king of England, to Hanover, and again conducted the negotiations at

Vienna and Verona. (q. v.) In September, 1823, when the emperors Francis and Alexander met at Czernowitz, prince Metternich was prevented by sickness from partaking in the deliberations, but, soon after, transacted business with the Russian minister, count Nesselrode. He continued in his post with unabated activity, and we may soon see him engaged anew in important diplomatic transactions. His latest work is the treaty between Austria and Sardinia, according to which the latter power engages to keep 60,000 men in readiness for Austria in case of war, probably in return for an assurance, on the part of Austria, that she will make no further attempts to wrest the crown from the present king of Sardinia, as it is well known that she strove to exclude him, when prince Carignano, from the succession, and to secure the crown for the duke of Modena-Reggio, an arch-duke of Austria, cousin to the present emperor. Prince Metternich is knight of all the highest orders of Europe, with the exception of that of the garter. The king of Spain bestowed on him the dignity of a grandee of the first class, with the title of duke. In 1816, the king of the Two Sicilies made him duke of Portella, with 60,000 *ducati* income. In 1816, the emperor Francis presented him with Johannisberg (q. v.), where the best hock is produced. Though actively engaged in the foreign affairs of his country, prince Metternich has also taken a great part in the internal, as the management of the finances, &c. After the death of count Zichy, the emperor conferred, in 1826, the presidency of the council of ministers for home affairs also on Metternich. His biography is given in the *Taschenbuch für die Vaterländische Geschichte*, 1827. The prince has three children, two daughters and one son, who was born in 1829. His sister is wife to Ferdinand, duke of Würtemberg.

Mettrie, Julian Offrie de la. (See *Lamettrie.*)

Metz (anciently, *Divodurum;* later, *Mediomatrici*, and *Mettæ*); a strongly-fortified city, in the western part of France, on the Moselle, 30 leagues north-west from Strasburg, 61 north-east from Paris; population, 45,276; lat. 49° 7′ N.; lon. 6° 11′ E. It is the seat of military, religious and civil authorities, and contains numerous literary, scientific and charitable institutions. It is a military place of the first class, highly important both for offensive and defensive measures. Its fortifications are very extensive, and constructed on the modern system, under the direction of Vauban and Belle-Isle. Besides manufactures of cotton, woollen, silk, &c., it has numerous and extensive public works in the war department. It is a very old place, founded at an early period by the Gauls, and adorned by the Romans with fine monuments. It was a free city of the German empire, from the eleventh century, but was occupied by the French troops, in 1552, and confirmed to France in 1648. About a league from the city, are the ruins of a Roman aqueduct, called, by the people, the *devil's bridge*. In 1822, some remains of antiquity were discovered in the ancient citadel, which have been described by Devilly (Metz, 1823).

Metzu, Gabriel, a painter, born at Leyden, in 1615, lived in Amsterdam, where he died in 1658. His models were Douw, Terburg and Mieris. His style, however, was nobler. He painted subjects from common life,—fruit-women, chemists in the laboratory, physicians attending the sick, &c. His manner is free and pleasing, and his imitation of nature true. His coloring was admirable. A lady tuning her lute, and another washing her hands in a silver basin held by her woman, are among his best pieces. His works are scarce, as he spent much time on them, and highly valued.

Meudon; a village and castle, two leagues from Versailles, and the same distance from Paris. The old castle, built in the fifteenth century, and which, in the seventeenth, belonged to Louvois, was demolished in 1804. The *château*, built by Louis XIV, is situated on a rising ground, and commands a view of Paris, the Seine, and the environs. There is a fine terrace in front, and a small park planted by Lenotre. Napoleon improved the works, and assigned it as the residence of his son, while at the breast. During the expedition to Russia, the empress resided there.

Meulen, Antony Francis van der, a battle painter, born at Brussels, 1634, was a pupil of Peter Snayers. Some of his compositions, having been carried to France, attracted the notice of Lebrun, and Colbert invited the young artist to Paris, with a pension of 2000 livres, and a residence at the Gobelin manufactory. His talents as a battle painter recommended him to Louis XIV, who always took him on his expeditions, and often pointed out the subjects which he desired him to represent. The painter had thus an opportunity of perfecting himself in his department of the art, and is considered, on account of his truth of expression, one of the best battle painters. He was also distinguished in the representation of scenes from common life, and in landscape painting. Among his most celebrated works, are the entrance of Louis XIV into a conquered city; the entrance of the same prince into Arras; the siege of Maestricht; a horseman, with a glass in his hand, speaking to a young girl, who is tuning her guitar, &c. He also executed many excellent views of ther oyal *châteaux* in France. The expression of his horses is particularly admired, and Lebrun intrusted to him the execution of the horses in his paintings of the battles of Alexander. Van der Meulen died in 1690. The most celebrated engravers of his time executed a series of 152 engravings from his works, among which those of his pupil Baudoins, which now form the 16th, 17th and 18th volumes of the great collection called *Cabinet du Roi*, are distinguished.

Meung, or **Meun**, John de, a French poet, surnamed, from his lameness, *Clopinel*, was born at Meung sur Loire, about 1250. He was well informed, and, by his poetical talents and vivacity, rendered himself a favorite at the court of Philip le Bel. He was satirically inclined, and exercised his wit upon the ladies of the court, who were so irritated against him, that a party of them seized him, and resolved to give him a severe flogging; but his wit came to his assistance, and he escaped castigation by desiring the most unchaste to give the first blow. He died about 1322, directing, by his will, that he should be buried in the church of the Dominicans at Paris, and leaving to that order a heavy chest, not to be opened until after the funeral. The friars, expecting a treasure, opened the chest, but found only some old slates, scrawled with sums and figures. In revenge, they disinterred the body; but the parliament of Paris obliged them to bury it again with fresh honors. His principal work was his continuation of the *Roman de la Rose*, begun by William de Lorris, which comprises more than three parts of the whole. It is not so poetical as the other, but has more satire and knowledge of the world. He was also the author of a translation of Boethius *de Consolatione*; the Letters of Abelard; a work on the Responses of the Sybils; and a satirical piece, styled the *Codicil of John de Meung*, prefixed to Lenglet du Fresnoy's edition of the *Roman de la Rose*, &c.

Meursius, John; a Dutch critic, born in 1579, at Losdun, near the Hague. At sixteen, while a student in the university of Leyden, he published his first work, an edition of Lycophron's Cassandra. He was afterwards selected by the celebrated Barneveldt, as travelling tutor to his sons, whom he accompanied over great part of the continent. On his return to Holland, after a ten years' absence (1610), he was elected professor of history and of Greek at Leyden, with the title of historiographer to the states general. The fall of Barneveldt (q. v.) obliged him to resign his situation; and, accepting an invitation of the court of Denmark, he proceeded to Copenhagen. Here he soon became established at the college erected for the education of the young nobility at Sora, in a similar post to that which he had occupied in Holland. His works are a History of Athens; On the Athenian Archons; On the People of Athens; On the Festivals of the Greeks; On the Dances of the Ancients; new editions of several classics; a History of Denmark, &c. The only complete edition of his works is that of Florence, in 12 folio volumes, 1743. Meursius died in 1639, leaving a son, who died at an early age, in 1653, the author of several valuable antiquarian treatises.

Meurthe; a department in the north of France. (See *Lorraine*, and *Department*.) The chief place is Nancy.

Meuse, in Dutch, *Maas*, (Mosa); a navigable river, which rises in the department of Upper Marne (Champagne), in France, passes through the provinces of Namur, Liege, and Limburg, separates those of Guelderland and Holland from South Brabant, and divides, at Gorcum, into two branches, the northern and southern, which empty into the North sea by several mouths. It passes by Namur, Liege, Mastricht, Ruremonde, Venloo, Gorcum, Dordrecht and Rotterdam, in the Low Countries.

Meuse; a department in the north of France, with 306,339 inhabitants; chief place, Bar-le-Duc. (See *Lorraine*, and *Department*.)

Meusel, John George, was born in 1743, at Eyrichshof, in Franconia, and, in 1764, entered the university of Gőttingen; in 1766, that of Halle, where he lectured until he was appointed, in 1769, professor of history in the university of Erfurt. From 1780, he lived in Erlangen, where he died Sept. 19, 1820, having continued active, in lecturing and publishing, almost to his death. He wrote statistical and historical works, and compiled several collections relating to the history of literature, literary men, and the arts. His *Gelehrtes Deutschland* (5th ed., Lemgo, 1796, et seq.—the 21st vol. was edited by Ersch

(q. v.), Lemgo, 1827); his Lexicon of all the German Authors who died from 1750 to 1800 (Leipsic, 1802, et seq.); his new edition and *rifacciamento* of Struvius's *Bibliotheca Historica*, 21 vols., not finished, are proofs of his accuracy and industry. In the department of the fine arts, he prepared several valuable works. In the department of statistics, he wrote *Anleitung zur Kenntniss der Europäischen Staatenhistorie* (5th ed., Leipsic, 1816); *Literatur der Statistik* (Leipsic, 1806—7, 2 vols.); and *Lehrbuch der Statistik* (3d ed., Leipsic, 1805). He was less happy as a historian, being oppressed by the immense mass of his materials.

Mexical, or **Mescal**; a spirituous drink, extracted from the aloe (*Maguey, Agave Mexicana*), which is consumed in large quantities by the Mexicans. It is also called *aguardiente de Maguey.* (See *Pulque.*)

Mexico. The republic of the United States of Mexico (*Estados Unidos Mexicanos*), which comprises the former viceroyalty of New Spain, is bounded E. by the gulf of Mexico and Louisiana, W. by the Pacific ocean, N. by the U. States of North America, and S. by Guatemala. It lies between 87° and 124° E. lon., and 15° and 42° N. lat., extending over 27 degrees of latitude, or 1876 miles from north to south. Its greatest breadth is in lat. 30°, according to Humboldt, 364 leagues (25 to a degree). Our acquaintance with a great portion of the country is very imperfect, and, even in those parts which have been most attentively examined, few of the positions are accurately determined. Almost the whole of the immense region lying north of 28°, comprising 14 degrees of latitude, is uninhabited by whites, and has never been explored. Humboldt calculates the superficial area at 118,478 square leagues of 25 to a degree; but this estimate does not include the space between the northern extremity of New Mexico and Sonora, and the boundary line of the U. States. About one third of this territory lies within the torrid zone, but the peculiar geological structure of the republic exerts the most striking influence upon the climate. The Cordillera of Mexico separates into two branches, which, diverging to the north-east and north-west, form, as it were, the declivities of an elevated platform, or table-land, which, in the more central parts, is raised to an elevation of 7000 feet above the level of the sea, and extends to the north as far as the limits of the torrid zone. This remarkable elevation modifies the effect of the geographical position of the country in such a manner that, while the towns on the central plateau enjoy a mild temperature, those on the eastern and western coasts are exposed to a torrid sun, and the intervening space is filled with almost every modification of heat. In ascending from the low country, the climates succeed each other in layers, and in two days the whole scale of vegetation is presented to view. Again above this tableland rise ridges, or single prominences, in which the same appearances are exhibited. Durango is situated 6848 feet above the level of the sea; Zacatecas, 8169; Catorce, 9254; to the south, Jalapa, 4335; Perote, 7724; La Puebla, 7200; Cuernavaca, 5428; to the west, Valladolid, 6434; Guanaxuato, 6825; Queretaro, 6362; in the centre, Mexico is situated in a large valley, or basin, 7000 feet above the sea. Some of the *haciendas*, or residences, are about 10,000 feet high, and, in some instances, carriage roads pass over still more elevated positions. The principal summits are, Popocatepetl, 17,884 feet; Orizava, 17,373; Cerra de la Leona, near Catorce, 10,645; and Istaccihuatl, 15,704. There are five volcanoes in activity, all near the 19th parallel of latitude—Orizava, Popocatepetl, Tustla, Colima and Jorullo; earthquakes are frequent, but not destructive. The inhabitants designate these successive climates by appropriate names: the low, hot country is called *tierra caliente*; the higher regions, *tierra fria* (cold country); and the intermediate regions, *tierra templada* (temperate country). Our division of the year, into four periods, is there unknown, the only distinction being into the rainy season (*estacion de las aguas*), which commences about the end of May, and lasts four months, and the dry season (*el estio*), which comprises the rest of the year. Mexico suffers for want of water. The rivers are few and insignificant, if we except the Colorado, the del Norte and the Grande. The lakes, which abound, appear to diminish gradually; the principal are, Chapala, Zumpango, S. Christoval, Tezcuco, &c., in the valley of Mexico; Cayman and Parras, in the Bolson de Mapimi; and the Timpanogos, further north. Among the various productions are maize and other corn, the banana, manioc, tropical fruits, cotton, coffee, sugar, tobacco, indigo, vanilla, cochineal, &c. Maize is produced in almost every part of the country, and in great abundance; its flour forms the chief food of the bulk of the inhabitants. Wheat succeeds very well on the table-land, but in the *tierra cali* *ente*, the ear will not form, and the difficulty of communication between the coast and upper country is such, that the former may be supplied, at a cheaper rate, from the U. States of North America. Sugar is raised in great quantities; enough is raised on the plateau, for the supply of its inhabitants, and the producers on the coast depend upon a foreign market; but, since 1822, the amount produced has much diminished. Coffee has been more recently introduced; the use of it has not been general in the interior till within a few years; extensive plantations were laid out in 1818 and 1819, near Cordova and Orizava, to which constant additions have been since made. Cotton was found among the indigenous productions of Mexico, and was generally used by the inhabitants. Up to the close of the last century, the annual amount of the cotton manufactures was estimated at $5,000,000. They have, however, gradually disappeared, but the raw material may be an important article of export, if properly attended to. The domestic animals of Mexico are the same as in this country. The wool of the Mexican sheep is of an inferior quality. It has recently been discovered that the silk-worm is indigenous in some parts of the country, and the silk produced is of an excellent quality, similar to that of the *bombyx mori* of China. The cultivation of the mulberry, and the breeding of silk-worms, were introduced by Cortez, but were afterwards prohibited by the mother country. The total agricultural produce of Mexico was estimated, by Humboldt, at $29,000,000. The amount of the mineral productions has been differently estimated. Mr. Ward calculates the total annual produce, from 1796 till 1810, at about $24,000,000, of which $22,000,000 were exported. The registered coinage, in that period, was $342,114,285. In a second period of 15 years (1811 to 1825 inclusive), the total amount of coinage was only $153,276,972, the capital invested in mining having been much diminished by the emigration of capitalists during the revolution. The whole amount of circulating medium, in 1810, is estimated by Mr. Ward to have been about $72,000,000, and the average annual exports, since 1810, at $13,587,052. Mexico will not probably, at least during the present century, become a manufacturing country, her mineral and agricultural wealth being sufficient to obtain for her all the necessary articles from other countries. Neither will she be a great maritime power. The Mexican ports on the Atlantic side are most of them insecure, and many of them are mere roadsteads. On the western coast there is, however, a series of magnificent ports, from Acapulco to Guaymas; many of which have never yet been entered. The commercial intercourse, on the western side, is much less important than that of the eastern coast, most of the countries with which it can be maintained on the Pacific (Columbia, Peru, Chile, China and Calcutta), producing nearly the same agricultural articles. Hides, tallow and wheat are, however, exported in considerable quantities. The returns are so imperfect, and the state of the country has been so fluctuating, that it is not easy to determine any thing with regard to the amount of the exports and imports, for any recent period. The Spanish colony of Mexico was, for a long time, divided as follows: 1. the kingdom of Mexico; 2. the kingdom of New Galicia; 3. the new kingdom of Leon; 4. the colony of New Santander; 5. the province of Texas; 6. the province of Cohahuila; 7. province of New Biscay; 8. province of Sonora; 9. province of New Mexico; 10. province of Old and New California. In 1776, a new division was established, into, 1. the viceroyalty of New Spain, consisting of the intendancies of Mexico, Puebla, Veracruz, Oaxaca, Merida or Yucatan, Valladolid, Guadalaxara, Zacatecas, Guanaxuato, S. Luis-Potosi, and the two provinces of Old California and New California; 2. the internal provinces depending on the viceroyalty (*Provincias internas del Vireynato*), comprising the province of the new kingdom of Leon, and the province of New Santander, and, 3. the internal provinces dependent on the governor of Chihuahua (*Provincias internas de la commandancia general*) consisting of the intendancies of New Biscay, or Durango, and Sonora, and the provinces of Cohahuila, Texas and New Mexico. This republic is now divided into 19 states and 5 territories. The states are, Yucatan, or Merida, Tabasco, Las Chiapas, Oaxaca, Veracruz, Tamaulipas (New Santander), San Luis-Potosi, New Leon, Cohahuila and Texas, La Puebla, Mexico, Valladolid (Mechoacan), Guadalaxara (Xalisco), Sonora and Cinaloa, Queretaro, Guanaxuato, Zacatecas, Durango, Chihuahua. Old and New California, Colima, Tlascala and New Mexico are territories, their population not being sufficient to enable them to return members to the congress. The first census, which was taken in 1793, gave a population of 4,483,529. As the natives suspected the object to be taxation, this number was probably below the truth. Humboldt thinks that it exceeded 5,000,000, and estimated the number, in 1803, at 6,500,000, which agreed very well with the results of the census of 1806. Ward estimates it at about 8,000,000, in 1827. Previous to the expulsion of the Spaniards, in 1829, the population was composed of Europeans (Chapetones or Gachupines); Creoles, or native whites of pure European descent; Indians, or the indigenous races; Mestizoes, or a mixed breed of whites and Indians; Mulattoes, or descendants of whites and Negroes; Zambos, or Chinos (Chinese), descendants of Negroes and Indians; and African Negroes. The descendants of Mulattoes and whites were called *quarteroons;* and those of a quarteroon and a white, *quinteroons.* These distinctions were fostered by the colonial policy of Spain, for the purpose of keeping up a rivalry of castes; and the king had the privilege of conferring the honors of whiteness upon an individual of any color, by a decree of the Audencia, *que se tenga por blanco* (that he should be held as a white). The revolution, which divided the population into Europeans and Americans, has contributed to efface these prejudices. Guerrero had a strong mixture of black blood, and several pure Indians have taken part in the government. The principal seat of the white population is the table-land, towards the centre of which the Indians are likewise numerous. The northern frontier is inhabited chiefly by whites, while the coasts are principally occupied by Mulattoes and Zambos, who are well adapted to the *tierra caliente.* The Indians form about two fifths of the whole population, and are divided into a great number of tribes, whose manners, language, degree of civilization, &c., are extremely different. No less than 20 languages, entirely distinct from each other, are found among them, and of 14 of them grammars and dictionaries have been compiled. The Catholic religion is the religion of the state. No other is tolerated. The old ecclesiastical divisions are retained, forming one archbishopric (that of Mexico), and nine bishoprics, comprising 1073 parishes. The clergy is composed of about 8000 individuals, including 4000 monks and nuns, in 206 convents. The clergy are not well educated, and the great mass of the Mexican population is in a state of deplorable ignorance. The policy of the mother country was calculated to keep down all that portion of the inhabitants who now form the population of the republic. All civil, military and ecclesiastical dignities were in the hands of Europeans, and any attempt towards instructing even the higher classes was discountenanced. The natural sciences were taught, and have been cultivated with some success. The moral state of the country is also far from being favorable. An attempt was made, at one time, to establish a navy, and, in January, 1827, it consisted of one ship of the line, two frigates, five corvettes and brigs, and a few smaller vessels; but even this force has not been kept up. The army, in 1827, consisted of 58,955 men, of whom 32,161 were actually under arms. The confusion which has prevailed for some time in the country, renders it impossible to give much statistical information of a recent date. The revenue, under the old government, was $20,000,000; during the revolution, it became exceedingly embarrassed, and did not exceed $4,000,000 or $5,000,000. In 1825, it was $10,500,000, and the expenditure was nearly $18,000,000. Several loans were made in 1823 and succeeding years, but at an enormous rate of interest. Under the government of Spain, Mexico was one of the four great viceroyalties of Spanish America. The viceroy was endowed with all the prerogatives of the king. The only checks upon him were the *residencia*, or investigation into his conduct on his return home, and the *audiencia*, composed of Europeans, and of which he was himself president. The *recopilacion de las leyes de las Indias* was the name given to the heterogeneous mass of decrees by which the colonies were governed. Special *fueros*, or privileges, were conferred on different professional and corporate bodies, which rendered the confusion complete. All the higher officers, in church and state, were Europeans. A system of dilapidation, beginning with the chiefs, extended through all the offices of government, and a monstrous corruption perverted the whole administration. The colony was not allowed to manufacture any article which could be supplied by the mother country; the whole trade was confined to a single port in Spain, and all foreigners were rigidly excluded. Books were prohibited, schools discouraged or suppressed, and every measure taken to prevent information from being spread among the inhabitants. The present form of government is that of a federal republic (*republica representativa popular federal*), each member of which manages its own internal concerns. The legislative power is vested in a congress, divided into two chambers, the house of representatives (*camara de diputados*), and a senate (*senado*). The former is composed of members elected for two years, by the citizens of the states, one member for every 80,000 inhabitants. The senate is composed of two senators for each state, elected by the state legislatures, the one first named for four years, and the other for two years. The congress is a high court of impeachment, and its powers are to maintain the union, regulate commerce, promote information, open roads and canals, lay taxes and imposts, declare war, approve treaties, &c. The supreme executive power is vested in a president, chosen by the legislatures of the states for four years. He has powers very similar to those of the president of the U. States. The council of government (*consejo de gobierno*) exists only during the intervals of the sessions of congress, and is composed of one senator from each state, with the vice-president of the republic at its head. Its duties are to watch over the observance of the federative act and the federal laws, to advise the president, to call out the militia, to approve the nomination of officers, &c. For the despatch of business, the government is divided into departments, with secretaries at their head. The judicial power is lodged in a supreme tribunal of justice, and in inferior courts, as determined by congress. The supreme court takes cognizance of all matters between different states, or individuals of different states, admiralty cases, treason, construction of the constitution, &c. It may itself be called to account, by a tribunal constituted for the purpose by the chamber of deputies. The states are organized in a similar manner, with much the same powers and rights as those of the North American Union.—See *Acta Constitutiva* (Jan. 31, 1824), *y Constitucion Federal de los Estados Unidos Mexicanos* (Mexico, 1828). This constitution was sanctioned Oct. 4, 1824. (For information on subjects connected with Mexico, see Bullock's *Six Months' Residence, &c., in* 1823; Hall's *Journal on the Coasts of Chile, Peru and Mexico, in* 1820—22; Lyon's *Journal of a Residence in Mexico*; Beaufoy's *Sketches*; Poinsett's *Notes*; the works of Robison, Brackenridge and Hardy; Ward's *Mexico* (2d ed., London, 1829); Humboldt's *Essai Politique sur le Royaume de la Nouvelle Espagne*; 2d ed., 1828.)

Mexico, Geology of. (See *North America*.)

Mexico, History of. Numerous remains of antiquity which have been discovered in different parts of the country testify to the state of civilization at which the natives had arrived previous to the arrival of the Spaniards. In 1519, Cortez (q. v.) discovered the country, and having landed on the eastern coast, founded the city of Veracruz, and penetrated into the country of Anahuac, occupied by the Aztecs. Montezuma (q. v.) then reigned over the country. The capital, Tenochtitlan, bore the title of *Mexico*, which signifies the residence of the god of war, and which was finally extended to the whole region. (See *Mexico, Antiquities of.*) After the death of Montezuma, the capital was taken by the Spaniards (1521), and the whole country fell into their hands. Cortez called it *New Spain*, and was created captain-general, but, in 1535, was displaced by a viceroy. We have already given some account of the colonial policy of Spain, and the condition of the colony under the Spanish dominion. Such was the condition of the country for three centuries (see Robertson's *History of America*; Clavigero's *Storia Antica del Messico*, translated into English; Solis's *Historia de la Conquista de Mexico*; new edition, with notes, Madrid, 1825), when the events of 1808 in the Spanish peninsula led to a change in the state of affairs. The Mexicans were, in general, loyally disposed to their sovereign, but the assumption of authority by a new body, the cortes, and their unwise and inconsistent proceedings tended to alienate their feelings of attachment. Don Jose Iturrigaray, the viceroy, in order to conciliate the Americans, proposed to constitute a junta, formed of representatives from each province, and composed equally of natives and Europeans, which should organize a provisional government. The latter, however, fearful of losing some of their former superiority, arrested the viceroy, and sent him out of the country. The new viceroy, Venegas, displayed an offensive partiality for the Spaniards, and exasperated the Creoles by the severity of his measures. An extensive conspiracy was organized, and the insurrection broke out in September, 1810. A priest, Hidalgo, a man of strong mind and great firmness, put himself at the head of the insurgents; but, after some fighting, and the commission of great atrocities on both sides, Hidalgo was captured and put to death in 1811. Morelos, a priest in the southern part of the country, who had been named captain-general of the southwest by Hidalgo, had meanwhile raised a considerable force, and, meeting with a series of successes, he advanced (in January, 1812) to within a short distance of the capital. In this expedition, Victoria (q. v.) first distinguished himself. Morelos was obliged to retire, but captured Oaxaca and Acapulco. A national congress was assembled at Chilpanzingo, September, 1813, which declared Mexico independent. The forces of the insurgents were afterwards almost entirely annihilated by Iturbide (q. v), and Morelos was himself shot in 1815. Victoria retired to the mountains, where he remained concealed 18 months. Guerrero (q. v.) alone maintained a small force in the south. In 1817, general Mina (q. v.) landed with a small body of foreigners, and gained some temporary success; but he was made prisoner in July of that year, and shot. Thus in 1819 all the insurgent chiefs had been pardoned or executed, except Guerrero. In 1820, the cortes having ordered the sale of the church property, Apodaca, the viceroy, refused to acknowledge the cortes; he employed Iturbide to reduce Guerrero, but that general joined the insurgent chief, proposed the plan of Iguala (q. v.), and proclaimed the independence of his country, February 24, 1821. At this time, the constitutional viceroy, O'Donoju, arrived in the country, and concluded with Iturbide the peace of Cordova, by which it was stipulated that the Spanish army should evacuate Mexico. The viceroy and Iturbide were associated in the government, and the army was called the *army of the three guarantees*, the objects to be maintained being the independence of Mexico as a separate monarchy under a Bourbon prince, the maintenance of the Catholic religion, and the union of all classes. A congress was assembled February 24, 1822, to settle the principles of the constitution. But the cortes having declared the past proceedings null, Iturbide caused himself to be proclaimed emperor May 18, 1822, under the title of *Augustin the First*. A powerful party opposed the new state of things. After a bloody struggle, the emperor offered to abdicate in March, 1823, and was allowed to depart for Europe. A new form of government, on federal republican principles, was now established. Iturbide returned to the country in 1824, but was immediately arrested and shot. On the banishment of the emperor, a *poder executivo*,or executive, was formed, consisting of Vittoria, Bravo and Negrete, and, in 1824, the constitution was adopted and proclaimed. Vittoria was chosen president and Bravo vice-president of the new republic. The first constitutional congress convened January 1, 1825, and held an extraordinary session in August of the same year. In December (20th), the castle of Ulloa was surrendered by the Spaniards, and the whole Mexican soil was now delivered from European hands. The prospect of tranquillity which was held out by the complete liberation of the country and organization of the government was soon interrupted by the violence of parties. The animosity of the Escoceses and Yorkinos resulted in acts of outrage and bloodshed, and the land has been distracted with civil war. The Escoceses (Scotch) was a masonic society of Scotch origin, composed of large proprietors and persons of distinction, who were mostly men of moderate principles, but decidedly favorable to the cause of independence. Many of them had, at one time, been in favor of a Spanish prince as constitutional king of Mexico, and they were therefore often styled *Borbonistas* by their adversaries The Yorkinos constituted a masonic society, which derived its origin from a masonic lodge in New York, through the agency of Mr. Poinsett, American minister at Mexico. These two political parties (for such they had become) were arrayed against each other on occasion of the choice of the second president in 1828, and also differed as to the policy to be pursued in the treatment of the Spaniards who resided in the country, the Yorkinos being in favor of their entire expulsion from the country. The result of the election, after an arduous contest, was the triumph of the Escoces party, whose candidate, general Pedraza (q. v.), was chosen, by a majority of two votes, over general Guerrero, the Yorkino candidate. General Santaña (q. v.), at the head of a body of troops, declared that this vote was not an expression of the will of the majority, and proclaimed Guerrero president. This movement was unsuccessful, but another was soon organized, and an armed body demanded the expulsion of the Spaniards. After some fighting, the government was obliged to yield, and general Pedraza, to avoid bloodshed, advised his friends to submit, and expressed his determination to leave the country. Guerrero was accordingly inaugurated president in April, 1829, and a law was passed ordering all Spanish residents to quit the country. In the summer of 1829, an expedition was fitted out in the Havana, under the command of general Barradas, to undertake the conquest of the Mexican republic. A force of 4000 men was landed at Tampico July 27, but on the 10th of September surrendered to general Santaña. But the dangers of a foreign invasion were no sooner past than domestic dissensions were again renewed. Guerrero, who had been invested with dictatorial powers on the approach of the invaders, was unwilling to resign them, and this was made a pretext for the opposition of the discontented. Bustamente, the vice-president, placed himself at the head of a body of troops in December, 1829, and issued a proclamation denouncing the abuses of the executive. He immediately advanced upon the capital, and was joined by the forces there. Guerrero, finding himself deserted, abdicated the presidency, and Bustamente was elected by the army his successor. In the latter part of 1830, new disturbances commenced, and a civil war ensued. Guerrero, who was made prisoner in February, 1831, was condemned to death for bearing arms against the established government, and shot. Since this period, Bustamente has remained at the head of the government, as vice-president, and the most recent information at the time we write (September, 1831) represents public confidence as restored, agriculture and commerce reviving, and the country recovering its prosperity. The national congress convened on the first of July, and was opened with a speech from the vice-president, in which he congratulates them on the complete establishment of tranquillity, and declares the nation to be in a condition to develope all the elements of prosperity which its situation, climate, natural wealth and free institutions entitle it to expect. (Besides the works previously referred to, the reader may consult don Carlos Maria Bustamente's *Cuadro Historico*, or Mendibil's *Resumen Historico de la Rev. de los Estados Unidos Mexicanos*, extracted from it.) Proposals have lately been issued for publishing a new map of Mexico by S. M. L. Staples, who has spent five years in the republic.

Mexico, Antiquities of. Our knowledge of the early condition of the country since called Mexico, is derived, in part, from the Mexican pictures, many of which were destroyed by the Spaniards. They contain chronological histories, and copies of some of them were made by native Mexicans at the time of the destruction of the originals. The greatest of these was a celebrated table in the possession of Siguenza y Gongora, professor of mathematics in the university of Mexico in 1698. The original is lost; but a copy of undoubted authenticity exists, of which Humboldt has given an account. It begins with the deluge of Coxcox, or, according to the Aztec cosmogony, the fourth destruction of the world. Coxcox, with his wife, was saved from destruction, their descendants received the gift of speech, and fifteen families arrived in Mexico. According to a Mexican author, who wrote soon after the conquest (*Ixtiloxchitl*), the first age, *Tlatonatiuh*, or age of giants, lasted 5206 years; the second, *Tletonatiuh*, or age of fire, 4804; the third, *Ehecatonatiuh*, the age of winds, 4010; the fourth, or age of water, described in the above-mentioned painting, 4008 years. The Toltecs migrated from a country north of Mexico, in A. D. 544, and in 1051, their monarchy was destroyed. The Aztecs arrived there, from Aztlan in 1178, and in 1325 founded Tenochtitlan, or the city of Mexico. Clavigero enumerates the collections of paintings which have been preserved; they were executed on skins, cotton cloth, and the leaves of the maguey or agave. At the time of the arrival of the Spaniards, the Aztecs had attained such a degree of civilization that the right of private property was understood, cities built, professions and distinctions of rank existed, the arts were cultivated with considerable success, &c. Among the most remarkable monuments of architecture are the *teocallis*, or pyramids. The pyramid of Cholula comprises a square, of 1773 feet, and is 177 feet high. It is formed of unburnt bricks and clay, and is attributed to the Toltecs, who preceded the Aztecs in the country. The object is unknown. About two miles from Pueblo are a number of pyramids, described by Humboldt. The first, the house of the sun, has a base of 682 feet in length, and is 180 feet high. The second, or house of the moon, is 150 feet high. They are both truncated, as is that of Cholula, and are also of Toltec origin. A group of little pyramids surrounds them, which are supposed to have been tombs. In the wall of the cathedral at Mexico is fixed a circular stone, covered with hieroglyphical figures, by which the Aztecs designated the months. Near it is a second stone, on which human sacrifices were performed. In the Dominican convent is a large idol, representing a serpent devouring a human victim. Mr. Bullock obtained leave to examine another, which was concealed under the gallery of the university; it represented the goddess of war, and was 6¾ feet high and 9¾ broad, and was composed of a deformed human figure, a tiger and a rattle-snake. (For information on the subject of this article, the reader may consult the works of Robertson, Clavigero, Humboldt, &c., mentioned in the article *Mexico;* also Ranking's Conquest of Peru and Mexico by the Mongols (London, 1827), and Antiquities of Mexico (7 vols., folio, London, 1830), containing fac similes of the Mexican paintings in the royal libraries of Paris, Dresden, Berlin, the imperial library of Vienna, the Vatican, the Bodleian library, Oxford; &c., with inedited Mexican histories.)

Mexico, or *Mejico*, one of the states of the Mexican confederacy, with a population of about 1,000,000 inhabitants, is divided into eight districts; between 16° 30′ and 20° N. lat., and 102° 50′ and 107° 20′ W. lon. It lies principally on the central plateau, but its western coasts on the Pacific are low. It is bounded north by Queretaro, east by Puebla, south and southwest by the Pacific, and west by Valladolid. Its capital is Tezcoco, Mexico, the chief city, having been declared a federal city. The magnificent port of Acapulco lies on its western coast. A great number of valuable mines lie within its territories, and its rich soil yields a valuable agricultural produce. The legislative assembly is composed of 19 deputies; and the districts are placed each under a prefect, whose duty it is to establish village schools, form a census, &c. Its constitution was adopted in 1827. The former intendency of Mexico comprised the states of Mexico and Queretaro.

Mexico, New; a territory of the Mexican confederacy, lying north of the state of Chihuahua, between 31° and 38° N. lat., 107° 50′ and 111° 50′ E. lon. It is traversed by the Rio del Norte, which flows into the gulf of Mexico. The population is not more than 50,000, of whom about half are Indians; capital, Santa Fe.

Mexico, formerly *Tenochtitlan*, capital of the Mexican confederacy, see of an archbishop, lies 7400 feet above the level of the sea; lat. 19° 25′ 45″ N.; lon. 103° 45′ 30″ W. The streets are broad, airy, and run at right angles; the houses spacious, but low, rarely exceeding one story, with flat roofs: it is the most magnificent city of America, and among the capitals of Europe, there are few that can support a comparison with it. It is situated at about an equal distance from Veracruz and Acapulco, in an extensive valley, surrounded with lofty mountains, and containing several lakes, among which are Tezcuco and Xochimilco. It is on the site of the ancient city of Tenochtitlan, but the waters of lake Tezcuco, on which it borders, have so far subsided that the islands on which the old city was built are now confounded with the main land. The three causeways which connected them still remain, and four have since been built, which are well paved, and bordered with trees, forming avenues to the city. Humboldt estimated the population, in 1803, at 137,000; Poinsett, in 1822, at between 150 and 160,000, and later estimates have stated it at 168,000. The principal public buildings are the cathedral, about 500 feet in length, the palace of government, the college of mines, a noble building, but now somewhat dilapidated; the mint, with a front of 360 feet by 250 feet in depth, the Franciscan and Dominican convents, &c. There are, besides, 48 convents, hospitals, churches, theatres, &c. The public walks are the Alameda and the Paseo. The rides to the Chapultepec, or summer palace of the viceroy Galvez, beautifully situated on an eminence, near which is an aqueduct of 900 arches, and to Tacubaya, a village about four miles from the capital, which contains the country residence of the archbishop, are very pleasant. The canal of Chalco, which extends from the lake of that name to the capital, is covered, morning and evening, with canoes of the peasants, conveying fruits, flowers and vegetables to market; near it are the remains of the Chinampas, or floating gardens, which are surrounded with a broad ditch, and are now, if they were not always, firmly fixed. The inhabitants display a good deal of splendor in their dress and equipages, but many of the wealthiest have been obliged to leave the country by the wars of the revolution. The lazzaroni population, which, in 1824, amounted to 20,000 individuals, called by the Mexicans *leperos*, is described by Ward as presenting a most disgusting appearance of filth and rags. Measures have since been taken by the government to reform them, by compelling them to labor. Mexico enjoys a mild climate, and a pure and healthy atmosphere: it is subject to inundations from the lakes, and numerous works, such as canals, dikes, &c., have been erected as a protection against such a calamity. Tenochtitlan was founded by the Aztecs, in 1325, and was a rich, flourishing, populous and active city, the seat of government and of religion, at the time of its discovery by the Spaniards. It was taken by Cortez, in 1521, after a siege of 75 days, and a most dreadful slaughter of the inhabitants. The besiegers rased the buildings as they advanced, in order to approach the principal quarter with safety. The ancient city was thus entirely destroyed, and the present city arose on its ruins. (See *Mexico*, and *Mexico, Antiquities of.*)

Mexico, Gulf of; a large bay or gulf of the Atlantic, extending north and south, from the coast of Florida to the coast of Tabasco and Yucatan, about 600 miles, and from the island of Cuba westward to the coast of Mexico, about 700 miles. Cuba divides it into two straits, one to the south, between cape Antonio and cape Catoche, 45 leagues wide, through which it communicates with the Caribbean sea, and another to the north, 40 leagues in width, called the *gulf* or *strait of Florida*. It receives the waters of the del Norte, Sabine and Mississippi. The Mexican ports on this gulf are mere roadsteads. The principal are Tampico and Veracruz. Havana and Pensacola are magnificent harbors. The principal current in the gulf is the Gulf stream, which takes its name from that circumstance; it is produced by the equatorial current from east to west, enters the gulf between the capes Antonio and Catorce, winds round its shores, and flows out by the channel of Florida, where Humboldt found its velocity to be five feet a second, against a strong north wind. (See *Current.*)

Meyer, Jonas Daniel, born at Arnheim, in Guelderland, 1780, studied at Amsterdam and Leyden. He was at first an advocate in Amsterdam, in 1811 et seq., occupied several important judicial offices, and, in 1817, retired to private life. Doctor Meyer is a distinguished writer on law, politics and legislation. His *Esprit, Origine et Progrès des Institutions judiciaires*, &c. Hague, 1819—23, 6 vols.) is a valuable work. He has recently published a work On Codification, particularly in England.

Meyerbeer; a distinguished German composer, of Jewish descent. He has lived a long time in Italy, devoted to Italian music. His father was a banker at Berlin, and his brother, Michel Beer, was a poet of considerable reputation. Meyerbeer was born in 1791, at Berlin. When but nine years old, he appeared before the Berlin public as a player on the pianoforte. In 1810—1811, he and Weber studied composition with Vogler. Under the direction of this teacher, he composed his *cantata* God and Nature, and the opera of Jephtha. The former acquired him great applause at Berlin, the latter was ill-received at Munich. Other operas of his being unsuccessful, he went, in 1815, to France, and thence to Italy, in order to acquire more knowledge of singing. He first appeared in that country at Padua, with the opera *Romilda e Costanza* (in 1817). It met with great applause. His *Margaritta d'Anjou*, and his *Emma di Resburgo*, were still more successful; but his *Crociato in Egitto* exceeded all, and was received in Paris and Germany with equal delight. In 1825, he returned to Germany.

Mezérai, Francis Eudes de, a celebrated French historian, born in 1610, at Ry, in Lower Normandy, was son of a surgeon in that place. After studying at Caen, he went to Paris, and obtained the post of captain of artillery, in which capacity he served two campaigns. He then quitted the army in disgust, and shut himself up in the college of St. Barbe, where he devoted himself to close study, and projected his History of France. Encouraged by the countenance and pecuniary aid of cardinal Richelieu, he published his first folio volume in 1643, which was followed by the second and third in 1646 and 1651. The court rewarded him with a pension of 4000 livres, and the title of historiographer. His success induced him to compose an abridgment, under the title of *Abrégé Chronologique de l'Histoire de France*, which is superior to the original. In the latter he gave an account of the origin of the public imposts, accompanied by some reflections, which offended the minister Colbert. The author promised to correct these in a second edition. He performed his promise, but at the same time informed his readers, that he was compelled to do so; the result of which was the loss of half his pension in the first instance, and, on farther complaint, of the whole.* In 1675, the French academy gave him the place of perpetual secretary, in which character he prepared a sketch of its projected Dictionary. He died in 1683. Mézérai was a man of great singularity in temper and manner, being caustic, censorious, and little attentive to the common forms of social life. As a historian, he is regarded as being more bold than accurate, with a style harsh and incorrect, but clear, energetic, and occasionally exhibiting a vigorous conciseness, not unworthy of Tacitus. His materials were taken at second hand, and never from original sources. The latest edition of the *Abrégé* is that of 1755, in 14 volumes, 12mo., in which the suppressed passages of 1668 are restored. Mézérai also wrote *Traité de l'Origine des Français*, with some translations; and a number of satirical pieces against the government, under the name of *Sandricourt*, have also been attributed to him.

Mezzo; an Italian adjective, which means *half*, and is often used in musical language, as *mezzo forte*, *mezzo piano*, *mezzo voce*, which imply nearly the same thing, viz. a middle degree of piano or soft.—*Mezzo soprano;* a pitch of voice between the soprano or treble and counter-tenor.

Mezzofante, abbate; the most distinguished linguist of our age, as to the ability of speaking numerous languages. His acquaintance with languages is immense. He speaks and writes fluently not less than eighteen ancient and modern languages, and twenty-two different dialects of Europe. Lord Byron (see Moore's work) calls professor Mezzofante "a monster of languages, the Briareus of parts of speech, a walking polyglot, and, more, who ought to have existed at the time of the tower of Babel, as universal interpreter." Mezzofante is professor of Greek in the university of Bologna, and was appointed, in 1831, to the high office of apostolic prothonotary by the pope.

Mezzotinto. (See *Engraving*.)

Mi; one of the six monosyllables adapted by Guido to his hexachords, and which was applied to the third and seventh notes of the natural diatonic scale.

Miami of the Lakes. (See *Maumee.*)

Miami Canal. (See *Canals*, and *Inland Navigation.*)

Miami; a river of Ohio, which rises in Hardin county, and runs south-westerly into the Ohio river at the south-west corner of the state. Its length is about 100 miles. Its navigation is not easy, but it affords numerous sites for mills and manufactories.

Miami, Little; a river which rises in Madison county, Ohio, and runs in a south-westerly direction about 100 miles, and falls into the Ohio river seven miles above Cincinnati. It is one of the best mill-streams in this state, but affords little navigation.

Miami University. (See *Oxford.*)

Miasma (from the Greek *μίασμα*, any thing polluting); a term used in the doctrine of contagious and epidemic diseases, with different meanings. Some authors use it precisely like *contagion;* with others it signifies the contagious matter of chronic diseases; with others, that contagious matter which collects in the atmosphere—flying contagion. Some understand by *miasma*, the vehicle of contagion; for instance, the pus of small-pox, which contains the proper contagious matter. *Miasma* also signifies certain matter, in the atmosphere, owing its origin to putrefied animal or vegetable bodies, or to the exhalation of animal bodies, and producing specific diseases. It would be well to contradistinguish *miasma* from *contagion*, and designate by the former term all the poisonous matter of diseases, which is not generated in living animal bodies, but has, in some other way, entered the atmospheric air. One of the most powerful correctors of miasmatic effluvia is chloride of lime, which is getting much into use among navigators and other persons exposed to such effluvia.

Miaulis, Andrew Vokos, a native of Hydra, was originally a poor sailor, who gained some property by his boldness and activity in the coasting trade. During the wars of the French revolution and those of Napoleon, he carried on a commerce with the French and Spanish ports in spite of the English cruisers, built the first ship at Hydra (q. v.), but was shipwrecked on a voyage to Portugal, with the loss of all his fortune. He, however, recovered from his losses, and was held in great esteem by his countrymen. Though averse to beginning the struggle for Greek freedom, at the moment when it was commenced, the first blow was no sooner struck, than he embarked heartily in the cause, and has ever been foremost in exposing himself, in sacrificing his fortune, and in giving an example of obedience to the government, and of disinterestedness. "Such is the man," says Howe (*Greek Revolution*), "who commanded the Greek fleet; and so irreproachable is his character, that even in Greece, where the people are so suspicious of their leaders, no voice is ever raised against Miaulis." As admiral of the Greek fleet, in 1823, 24, 25, 26, he displayed the greatest coolness, courage and prudence, and soon became the terror of the Turks. (See *Greece, Revolution of.*) Miaulis is now (1831) about 63 years old.

Mica. (See *Appendix*, end of this vol.)

Micah, the sixth of the minor prophets, was a Morasthite, of the tribe of Juda. He prophesied in the reigns of Jotham, Ahaz and Hezekiah, from 749 to 679 B. C. Nothing is known of his life or death. His prophecy is directed against Samaria and Jerusalem, whose sufferings, he declares, shall be greater than those of Babylon and the other gentile cities. The village of the Savior's birth is designated by him (v. 2)—"But thou, Bethlehem Ephratah, little among the thousands of Judah, out of thee shall come forth a ruler in Israel, whose generation is of old, from everlasting." His style is pure and correct, his images bold, his denunciations full of strength and bitterness.

Michael (Hebrew, *he who is equal to God*) is spoken of in Daniel (x, 13 and 21, xii, 1) as one of the "chief princes," and the "great prince." In Jude (v, 9), he is called the "archangel who disputed with the devil about the body of Moses." In the Revelation (xii, 7), it is said "there was war in heaven: Michael and his angels fought against the dragon." From this expression, it has been inferred that he was the chief of the celestial hierarchy; and it is in this character that the Catholic church pays him religious honors. Milton (vi) calls him "of celestial armies prince," and "prince of angels," and attributes to him the command of the heavenly forces in the war with Satan.

Michael, St. (*S. Miguel*), the largest of the Azores, was discovered in 1444, and taken possession of by Cabral, in the name of Portugal, to which power it now belongs; lat. 37° 50′ N.; lon. 30° 30′ W.; 25 leagues S. E. from Terceira. In the interior it is mountainous, some of the peaks rising to a height of more than 7000 feet, and evidently of volcanic origin. Earthquakes are frequent, and the soil is in many places composed of volcanic products. In the valleys it is fertile, and produces corn, potatoes, oranges, grapes, peaches, and plums. The coasts abound with fish, and there are many mineral springs in the interior. The climate is mild and agreeable. The commerce is considerable, principally with England, Portugal and the U. States. The population is about 80,000; capital, Ponta Delgada. (See *Azores*, and *Portugal*. See also Webster's *Description of St. Michael*, Boston, 1821.) In August last (1831), the troops of dona Maria took possession of St. Michael.

Michaelis, John David; professor at Göttingen, a celebrated theologian and Orientalist, born at Halle, Feb. 27, 1717, where his father, Christian Benedict, was a distinguished professor of the same branches. John David received his first instruction from his father, and afterwards studied in the orphan house at Halle. After taking his degrees, he made a journey to England and Holland, where he formed connexions with several learned individuals in London and Oxford, and in Leyden. After his return to his native country, he prosecuted his studies with great ardor, and, in consequence of the death of professor Ludwig, was intrusted with the preparation of a catalogue *raisonné* of the Halle university library. Through the influence of the baron von Münchhausen, Michaelis, in 1745, was made professor of philosophy at Göttingen, where, in 1751, he was appointed, with Haller, to draw up the constitution of the new royal society of sciences, of which he was secretary and director, until some differences with one of his colleagues induced him to resign his posts and leave the society. From 1753 to 1770, he was one of the editors of the Göttingen Literary Notices, and from 1761 to 1763, was librarian to the university. After the death of Gesner (1761), he undertook the direction of the philological seminary, from which so many eminent philologians have proceeded. During the troubles of the seven years' war, Michaelis was employed in making preparations for an exploring expedition into Arabia, which was afterwards undertaken by Niebuhr, and which contributed many important explanations to obscure passages of scripture. He died in 1791. His labors in biblical criticism and history are of great value. His principal works are *Mosaisches Recht* (6 vols.; second edition, 5 vols., 1776—80, translated into English, under the title of Commentaries on the Laws of Moses); Introductions to the Study of the Old and New Testaments (the latter has been translated by Marsh); *Spicilegium Geogr. Hebræorum;* Translations of the Old and New Testaments, with grammatical and lexicographical productions. Heyne and Eichhorn have furnished tributes to his memory, and he himself left an autobiography.

Michaud, Joseph, a member of the French academy, and a man of some literary fame, well known as a violent partisan of the Bourbons, was born in 1771, and, in 1791, went to Paris, where he immediately began to write in the royalist journals. He was obliged to conceal himself during the reign of terror; and, under the directorial government, he was several times imprisoned, and was once condemned to death by a military commission. At the time of his condemnation, he was the editor of the *Quotidienne.* He took flight, but, the sentence being subsequently annulled, he returned. After the 18th of Fructidor, he was among the persons who were ordered to be transported to Cayenne, but he contrived again to escape, and found a refuge in the mountains of the Jura. Of these events he has given an amusing account in a poem, entitled the Spring of a Proscribed Man. During the reign of Napoleon, M. Michaud was the secret agent of Louis XVIII, and the count D'Artois.

He, however, celebrated the marriage of the emperor and Maria Louisa, in a poem called the Thirteenth Book of the Æneid, or the Marriage of Æneas and Lavinia. Napoleon, nevertheless, who suspected him to be an enemy, would never grant him any favor. Louis XVIII appointed him one of his supplementary readers, censor-general of the journals, and officer of the legion of honor. After the second abdication of the emperor, M. Michaud was elected a member of the chamber of deputies, but sat during only one session. He is the author of many pamphlets and poems, and of a Literary Journey to Mount Blanc, and in some Picturesque Parts of Savoy; History of the Empire of Mysore (2 vols.); the History of the Crusades, (7 vols.); and of a great number of articles in the Universal Biography. In 1830, he set out on an expedition to the East, in order to visit the places memorable in the crusades, preparatory to a new edition of his history.

Michaud, Louis G., younger brother of Joseph Michaud, served in the army, and attained the rank of captain during the early campaigns of the revolution; but, in 1797, gave up his commission, in order to settle at Paris, as a partner with M. Giguet in the printing business. He and his partner being royalists, their press was frequently employed in printing papers sent to them by Louis XVIII and his brother; and, for an offence of this kind, M. Michaud, in 1799, suffered three months' imprisonment in the Abbaye. After the restoration, M. Michaud became king's printer. In 1816, however, he lost his place, in consequence of his having printed various publications hostile to the charter. Michaud is the author of a Historical View of the first Wars of Napoleon (2 vols.), and is the publisher of the celebrated *Biographie Universelle* (Paris, 1811—1828), to which there were over 300 contributors. Michaud is the author of numerous articles.

Michaux, André, a celebrated traveller and botanist, born at Sartory, near Versailles, in 1746, was early led by the example of his father and his own inclinations to devote himself to agricultural pursuits, but at the same time did not neglect to cultivate the sciences and polite literature. The loss of his wife, soon after an early marriage, interrupted his prospects of domestic happiness, and carried him to Paris, where he became acquainted with Lemonnier, and acquired a taste for botany. He attended the lectures of Jussieu, and, in 1780, visited Auvergne, the Pyrenees and Spain, in company with Delamarck and Thouin, on a botanical excursion. In 1782, Lemonnier obtained for him permission to accompany Rousseau, who was appointed Persian consul, to Persia, and after spending two years in those parts, Michaux returned with a fine collection of plants and seeds. In 1785, he was sent to America for the purpose of sending out trees and shrubs for the establishment at Rambouillet, landed at New York, and visited New Jersey, Pennsylvania and Maryland, &c. In 1787, he formed a new establishment at Charleston for the procuring and preserving plants, and visited Georgia, Florida, the Bahamas, &c. In 1792, he examined the more northern parts of the continent, to the vicinity of Hudson's bay. The two gardens which he had established at New York and Charleston were now in a flourishing condition, and had done much towards advançing arboriculture in the U. States. Soon after his return to Philadelphia, Michaux was sent to Louisiana by the French government on a public mission, and, in July, 1793, crossed the Alleghanies, and descended the Ohio. The project in relation to which he had been sent having been abandoned, he returned, in December, to Philadelphia, by the way of Virginia. The next year, he again crossed the mountains, and examined the western parts of the U. States. The difficulties which he had to encounter in these expeditions may be easily imagined. In 1796, he returned to Europe, was shipwrecked on the coast of Holland, but saved the greater part of his valuable collection, and, on his arrival in Paris, found that out of 60,000 stocks which he had sent out to Rambouillet, only a very small number had escaped the ravages of the revolution. Michaux was unable to obtain the arrears of his salary for seven years, or any employment from the government, and occupied himself in preparing materials for his works on North America. In 1800, however, he was attached to the expedition of Baudin to New Holland; but, after visiting Teneriffe and the Isle of France, he left the party, and went to Madagascar, where he soon after died of a fever (November, 1802). His works are *Histoire des Chênes de l'Amérique Septentrionale* (Paris 1801, folio, with 36 plates, representing 20 species and 16 varieties); and *Flora Boreali-Americana* (2 vols., 8vo., 1803, with 52 plates, comprising 1700 plants, and about 40 new genera).

Michaux, François André, son of the

preceding, is the author of the North American Sylva (5 vols., 8vo., Philadelphia, 1817, 150 colored engravings); and of Travels in Ohio, Kentucky and Tennessee (London, 1805). (See North American Review, vol. xiii.)

Michel Angelo, or Michelangelo. (See *Angelo.*)

Michigan; a territory of the U. States. This territory may be viewed in two aspects—one, as presented by its political limits, established by the acts of congress of January, 1805, and April, 1818; the other as exhibited by the natural boundaries by which it will probably be defined when it enters the confederacy; and known by the appropriate and more usual designation of *Michigan Proper*. The whole extent of country called *Michigan*, lies between 41° 38′ 58″ and 48° 37′ N. lat., and 82° 15′, and nearly 95° W. lon. from Greenwich. That portion lying W. of 87° 10′ lon., comprises the extensive district attached to Michigan, and contemplated to be set off and organized as a new territory. This latter region, bordering east on lake Michigan, north on lake Superior (nearly half of which it embraces), and the chain of small lakes connecting that Mediterranean with the heads of the Mississippi, and west and northwest on the Upper Mississippi, has been little explored. Judging from known portions of it, however, it must gradually assume, as its resources are developed by the progress of improvement, great interest and importance. The country included between the Fox and Wisconsin rivers, and the western shore of lake Michigan, bears a highly inviting character. The soil is a rich, black alluvial, irrigated by innumerable veins of water. The face of the country is unbroken by hills of any magnitude. From its northern extremity south to the Milwalky and the heads of Rock river, it is covered with a dense forest, opening, as traced farther down to the southern bend of lake Michigan,into fertile and extensive prairies. It is not marked by that sterility which usually distinguishes mineral regions. Explorers have noticed, as a feature of geological interest, the entire absence of pebbles upon the surface of these prairies, and to a depth of two or three feet. The succeeding stratum is of clay. More than 36,000,000 pounds of lead were yielded, by the mining district, from the autumn of '24 to that of '29. The southern shore of lake Superior affords strong indication of copper. By the treaty of Prairie du Chien, 1829, the U. States purchased of the Winnebagoes, Chippewas, Ottawas and Potawatamies, a tract of about 6,000,000 acres of land, of which 2,300,000 are supposed to be within the limits of the contemplated territory. About 132,000 in the vicinity of Green bay have also been ceded. The former cession comprehends nearly all the mining district of the Upper Mississippi. It is occupied principally by the Winnebago, Chippewa and Sioux tribes of Indians. The white population, confined chiefly to Green bay and the mining district, is estimated at 6000. Military posts are established at Green bay, Prairie du Chien, fort Snelling, on the St. Peters, and fort Winnebago, at the portage of the Fox and Wisconsin rivers. Settlements are formed, more or less extensive, at Green bay; Pembina, on Red river of lake Winnepeg; Prairie du Chien, on the Mississippi, and the lead mine, bounding on the Mississippi and Wisconsin.—*Michigan Proper* lies between 41° 38′ 58″ and 46° 50′ N. lat., and 82° 15′ and 87° 10′ W. lon., and is bounded N. by lake Superior, E. by St. Mary's river, lake Huron, St. Clair river, lake St. Clair, Detroit river, and lake Erie; S. by Ohio and Indiana; and W. by a line dividing lake Michigan N. and S. to Big Beaver island; and thence running due N. to the national boundary in lake Superior. These limits comprehend about 60,500 square miles, of which a third, perhaps, is covered with water. They comprise two peninsulas:—the larger, being the peninsula of Michigan, bounded E. by lakes Erie, St. Clair and Huron, and W. by lake Michigan, containing about 36,000 square miles; the smaller, bounded S. by the straits of Mackinac, E. by the river St. Mary, N. by lake Superior; containing about 2000 square miles. The former is about 280 miles long, N. and S., and from 180 to 200 broad, E. and W. From the base of the peninsula, as far N. as Grand and Saginaw rivers, the country has been ceded by the Indians. The jurisdiction of Michigan extends over all the territory of the U. States E. of the Mississippi and N. of Illinois. As generally indicating its geological and mineralogical character, we may remark, that the rock is covered with a bed of alluvial earth, from 30 to 150 feet deep. The rocks belong to the secondary class. The strata, in the southern part of the territory, are supposed to dip S. E at an angle of about ¼° with the horizon. Ferriferous sand rock, saliferous rock, and mill-stone grit, are found alternating on the surface, at various points in the middle and western parts of the peninsula. Salt springs occur on the branches of many of the interior rivers. Bog iron ore, lead ore, gypsum and bituminous coal are found, though in inconsiderable quantities. Peat is abundant in many parts of the territory. The face of the country is generally level or gently undulating. A strip of table land, stretching N. and S., and assuming, as it is traced N., the character of a ridge, divides the waters emptying eastward into lakes Erie, St. Clair and Huron, from those passing westward into lake Michigan. Its elevation is estimated to be 300 feet above the level of the lakes. South of a line drawn due W. from the southern extremity of lake Huron, the country consists of open land, known by the name of *Oak-plains.* The soil is a loam, with varying proportions of clay. It becomes fertile by cultivation, and is good farm land. In the country bordering on the Kalemagoo and St. Joseph rivers, prairies of a black, rich, alluvial soil and unusual productiveness, frequently occur. The northern part of the peninsula is in the occupation of Indians, and has been little explored, except along the borders. The land is in many places more elevated than that farther south, and is covered with the trees usually found in those latitudes. The Indians raise corn in abundance. The peninsula between the straits of Mackinac and lake Superior, as far as is known, resembles, in its soil, forests, form and climate, the northern part of the peninsula of Michigan. In the southern part of the territory, the climate is temperate; in the northern, cold. Snow falls at Detroit from 6 to 18 inches deep, and remains two or three weeks. The transition from the cold of spring to the heat of summer is rapid; from summer to winter, gradual and prolonged. As general characteristics, the spring is wet and backward; summer, dry; autumn, mild; winter, cold and dry. The average temperature is, in the spring, 50° of Fahrenheit; summer, 80°; winter, 20°; autumn, 60° to 65°. The rivers, with the exception of St. Mary's, St. Clair, and Detroit, which form connecting links in the great chain of lakes, are small. They rise near the dividing ridge, and run, with a rapid current, E. or W. Their numerous branches furnish abundance of mill-seats in all parts of the country. From the greater proximity of the ridge to the eastern border of the peninsula, the streams running E. are of course shorter than those which take a contrary direction. They are also, in general, smaller, and navigable to less extent. Thunder bay river, emptying into Thunder bay, and Cheboiyan river, into the straits of Mackinac, are the only considerable streams N. of Saginaw bay.

The Detroit river is about		25 m. long; average br. $1\frac{1}{10}$ m.; average depth, 6 fathoms; current, 2 m. per hour.
"	St. Clair,	40 m. long; ship-channel, 35 m.; average br. $\frac{1}{2}$ m.; average depth, 8 fathoms; current, 3 m. per hour.
"	St. Mary's,	50 m. long; ship channel, 35 m.; average br. $\frac{3}{4}$ m.; current, exclusive of rapids, $1\frac{1}{2}$ m.
Lake St. Clair,		24 m. long; br. 30 m.; circum. 90 m.; depth, 20 feet.
"	Huron,	280 m. long; coasted, S. shore, 360 m. long; br., exclusive of the vast bay, on the N. E. coast, 90 m.; medium depth, 900 feet.
"	Michigan,	300 m. long; br. 60 m.; medium depth, 900 feet.
"	Superior,	420 m. long; coasted, S. shore, 530; br. 170; med. depth, 900 feet.

Comparative Estimated Elevation of the Lakes above the Atlantic, at High Tide.

Superior.	Mean fall of St. Mary's from point Iroquois, 60 m. (excl. of rap.),	12 ft.	16 in.
	Sault (fall) St. Mary's, as ascertained by gen. Gratiot, Eng. dep., $\frac{3}{4}$ m.	22	10
	Sugar island rapids, 4 ft.; Nibish, 5, ...	9	
Huron.	St. Clair rapids, $\frac{1}{2}$ m., 1 ft., 6 in.; $1\frac{1}{2}$ m., 1 ft., 6 in., as ascertained by Mr. Lyon, ...	3	
	St. Clair river, 30 m., 4 in. per m., ...	10	
St. Clair.	Detroit river, 25 m., 3 in. per m., ...	6	3
Erie.	Above Atlantic at high tide, as ascertained by N. Y. canal com.,	560	
	Elevation of lake Superior, ...	623 ft.	7 in.

These estimates, except where exact knowledge has been obtained, can be regarded as approximations only. A rise and fall of water occurs daily, though irregularly, at Green bay. It has also been observed at the southern point of lake

Huron. Experiments which have been instituted, have failed to determine whether it can be regarded as a tide. The animal and vegetable productions are such as are usually found in the same latitudes. Game, fish, and aquatic birds, are in great abundance and variety. The civil divisions of the territory are those of counties and townships. The legislative power is vested in a governor and council; the latter elected biennally, and restricted to annual sessions of 60 days each; the executive, in a governor appointed for terms of three years; the judicial, in a supreme court, consisting of three judges, whose terms of office are four years; circuit courts, held by two of the superior judges; and subordinate jurisdictions, as county courts, magistrates, &c. Detroit is the seat of government. It is situated on the right bank of the river, 18 miles from lake Erie, and 7 from lake St. Clair. Its site is an elevation of about 30 feet above the level of the river. It contains about 400 houses, and 3000 inhabitants. The plan of the town, upon the river, and for 1200 feet back, is rectangular; in the rear of this, triangular. The streets are from 50 to 200 feet wide. Three roads, constructing by the general government, terminate in the centre of the town;—the Chicago, leading to Illinois; the Saginaw, to the head of Saginaw bay; the fort Gratiot, to the foot of lake Huron. A United States' road, leading from Detroit to Ohio, has been completed. Ninety vessels, of which 40 belong to Detroit, trade to that port. Their tonnage is about 6000. Those belonging to the port discharge there regularly, and have their outward cargoes supplied by the country. Steam-boats go regularly to Buffalo, arriving and departing daily. There are nine; aggregate tonnage, 2000. With every natural facility for becoming a place of importance, the condition of Detroit has hitherto depended on the precarious support afforded by the fur trade, the disbursement of public moneys, while a military post, and the liberal appropriations by government for public objects. The impulse and effect produced by the settlement and cultivation of the surrounding country, was wanting. This, though recent in Michigan, has commenced, and is rapidly increasing. A strong and increasing tide of immigration has set in. The causes of prosperity once in action, their results will probably be shown there, as they have usually been manifested elsewhere. The population of Michigan Proper exceeds 40 000. Regular settlements were first made in the beginning of the last century. The government, under the dominion of the French, was arbitrary, uniting the civil and military authority in the power of a "commandant." Lands were held of the king, and undergrants, temporary or permanent, were made by his governor-general, to which feodal rent was usually incident. The rules regulating the rights of property, particularly in regard to the marriage relation, succession and devises, were those of the French customary law, called *coutume de Paris*, as far as applicable to the circumstances of the country. These were abrogated, as to further recognition in the territory, in 1810. In 1763, the French possessions in Canada were ceded to England. By the treaty of Paris, 1783, this country was transferred to the U. States. From this period, the English government ceased to exercise a criminal jurisdiction over it. In 1796, under Jay's treaty of '94, possession of these upper posts was delivered to the American government. The North-western territory was ceded by Virginia, New York, Massachusetts and Connecticut to the U. States, and, in 1787, congress passed an ordinance for its government; amended in 1789, to adapt it to the new government of the U. States, which had taken effect in the interim. The expenses of the territorial government, consisting of the salaries of the governor, secretary, council, superior judges, district attorney and marshal, all appointed by the general government, are defrayed by the U. States; those of the county and township governments by direct tax. A delegate to congress is elected biennially, who may debate, but not vote. The qualifications necessary to suffrage are—to be a free white male of age; citizenship; a year's residence in the territory; payment of a county or territorial tax. By the articles of compact, slavery is prohibited. The number of Indians within the peninsula, is estimated at 9000; within the territory of Michigan, at 40,000. Those in the peninsula are Chippewas, Potawatamies and Ottawas, and are kindred tribes. The Potawatamies live on reservations of land in the St. Joseph country. The Ottawas and Chippewas of Thunder bay, Saginaw, and river au Sable, own all the peninsula north and west of a line drawn from the forks of Grand to the source of Thunder bay river. They are hunters and trappers. The Ottawas are the most agricultural in their habits, and a band of this tribe have a flourishing settlement at

L'Arbre Croche, on the western coast of lake Huron. The borders of St. Clair river and lake, rivers Detroit, Raisin, Clinton, and Plaisance bay, at the mouth of the Raisin, are settled by French inhabitants. They occupy a belt of land on the borders of these streams, three miles broad. They are civil, honest, unobtrusive and industrious, with little education, and essentially deficient in enterprise.

Michigan, Lake; one of the five great lakes in the northern part of the United States, and wholly within the territory of these states. It has the Michigan Territory on the east, Indiana on the south, and is connected on the north-east with lake Huron, by the strait of Mackinac. Its length is nearly three hundred miles, its breadth about sixty miles, and its average depth about 900 feet. The distance from the southern extremity to the Mississippi is 161 miles. Lon. 84° 40′ to 87° 8′ W.; lat 41° 15′. to 45° 35′ N. It contains, according to Hutchins, 10,868,000 acres. The waters are clear and wholesome, and contain many kinds of fish. In the north-west part there are two large bays, Noquet's and Green. (For other particulars, see *Michigan Territory.*)

Michilimackinac, or **Mackinac**; a post-town and military post in Michigan. It is situated upon an island in the strait connecting lake Huron and lake Michigan; the best authorities now give to the town and island the name *Mackinac*, and to the county of which the town is the capital, and the strait in which it is situated, that of *Mackilimackinac*. The common pronunciation is *Mack-i-naw*, and the name is not unfrequently written in this manner. The island is about nine miles in circuit. The town is on the south-east side of the island, on a small cove, which is surrounded by a steep cliff, 150 feet high. It consists of two streets parallel with the lake, intersected by others at right angles, and contains a courthouse, a jail, and several stores. The population of the county, in 1830, was 877. It is much resorted to by fur-traders, and during the summer is visited by thousands of Indians, on their way to Drummond's island. On a cliff above the town is the fort. The highest summit of the hill is 300 feet above the lake; and it affords an extensive view of the lakes Michigan and Huron. Lon. 84° 40′ W.; lat. 45° 54′ N.

Michilimackinac, Straits of; a channel connecting lake Michigan with lake Huron, 40 miles long from east to west, and 4 miles wide in the narrowest part.

Mickle, William Julius, an English poet, the son of a Presbyterian clergyman, was born in Scotland, in 1734, and received his education at Edinburgh. At first he engaged in business as a brewer, but not succeeding, he devoted himself to literature, and removing to London, was noticed by lord Lyttleton. In 1765, he was employed as corrector of the press in the Clarendon printing-office at Oxford, where he published a poem entitled the Concubine, in imitation of Spenser, republished with the title of Sir Martyn. He afterwards edited Pearch's Collection of Poems, 4 vols. supplementary to that of Dodsley. In 1775, appeared his principal production, a translation of the Lusiad of Camoens. Prefixed to the poem is a historical and critical Introduction, including a life of Camoens; and the work itself is executed in a manner highly creditable to the talents of the translator. In 1778, Mr. Mickle accompanied commodore Johnson as his secretary on a mission to Lisbon; and died in 1788. His poetical works were published collectively, in 3 vols. 8vo., 1807, with a biographical memoir.

Micrometer; an instrument fitted to telescopes in the focus of the object-glass, for measuring small angles or distances, as the apparent diameters of the planets, &c. Various forms have been given to this instrument by different authors, and various claims have been urged for the honor of the invention. It seems, however, to belong to Gascoigne, an Englishman, though it is doubtful whether Huygens did not also invent the one which he used, without any knowledge of that of the former. Under all the forms of this instrument, the principle of operation is the same, which is, that it moves a fine wire parallel to itself, in the plane of the picture of an object, formed in the focus of the telescope; and with such accuracy as to measure with the greatest precision its perpendicular distance from a fixed wire in the same plane, by which means the apparent diameters of the planets, and other small angles, are exactly determined. This may be illustrated as follows:—Let a planet be viewed through a telescope, and when the parallel wires are opened to such a distance as to appear to touch exactly the two opposite extremities of the disc of the planet, it is obvious that the perpendicular distance between the wires is then equal to the diameter of the object in the focus of the object-glass.

Microscope. The history of the mi

croscope is veiled in considerable obscurity, and among the moderns the discovery of this instrument has been claimed by several individuals. The ancients appear to have been acquainted with it in one of its forms; for Seneca says, "Letters, though minute and obscure, appear larger and clearer through a glass bubble filled with water." In the middle ages this knowledge was lost. The invention of the modern instrument is attributed by the celebrated Dutch mathematician Huygens, to a countryman of his, named Drebell, who constructed them about 1621, or 31 years after the invention of the telescope. Borelli attributes it to Jansen, the reputed contriver of the telescope; Viviani to Galileo. The first microscope, consisting of two double convex lenses, seems to have been made by F. Fontana, a Neapolitan, who dates his invention from 1618. The numerous forms of microscopes may be included under the heads of single, compound refracting and compound reflecting microscopes. The theory of the *single microscope* may be thus explained. We all know that at a small distance we see more distinctly than at a large. If we look at two men, one 200 feet distant, the other 100 feet, the former will appear only half the height of the latter, or the angle which the latter subtends to the eye of the observer will be twice that subtended by the former. Hence we must conclude, that the nearer we can bring an object to the eye, the larger it will appear. Now if to render the parts of a minute object distinguishable, we bring it very near the eye (suppose within one or two inches), it will become very indistinct and confused, in consequence of the great divergence of the rays of light from the object, and the power of the crystalline lens of the eye not being sufficient to collect the rays whereby an image of the object may be formed on the retina at the proper distance on the back of the eye. Now if we employ a single microscope, which consists of a convex lens usually made of glass (though any other transparent substance would have the same power in a greater or less degree), and mounted in a brass setting, and place it between the object and the eye, the former being in the focus of the glass, the diverging rays from the object will be refracted and rendered parallel by the lens, and thus we shall obtain a distinct and near view of the object. The increase of apparent magnitude obtained by the employment of lenses, is proportioned to the difference of the distance of an object from the lens and the distance when seen without its assistance. This latter distance (the distance of distinct vision of minute objects with the naked eye) varies in different persons, and at different periods of life. Some measure therefore must be assumed as a standard, before we can express the amplifying power of a lens so as mutually to have the same idea of the magnitude of an object. Some authors adopt ten inches as the standard of the focus of the eye, under ordinary circumstances, and its decimal character makes it a convenient multiplier or divisor. With this decimal standard we can determine the magnifying power of lenses of any focal length, or formed of any substance (media). Thus if we have a lens which requires for distinct vision the object to be one inch from its centre (in a double convex), we must divide the standard ten by one which will give ten as the magnifying power. If the lens require the object to be 1-25th of an inch distant, its magnifying power will be 250. We have called the magnifying power in the first instance ten, because the length of the object is increased ten times; but as its breadth is also increased ten times, the real magnifying power of the lens is ten times ten, or a hundred. The common form of the magnifiers employed for microscopes is double-convex, and they should be made as thin as possible; for the wandering or spreading out of the rays proceeding from an object when refracted by a lens with spherical surfaces, whereby an indistinctness is produced in its image, will be decreased, as the square of the thickness of the lens employed, and the loss of light in passing through the lens is less in proportion as it is thin.—Within a few years, diamonds have been formed into lenses in consequence of their high refractive power, whereby we can obtain lenses of any degree of magnifying power with comparatively shallow curves, and as the dispersion of color in this substance is as low as in water, the lens is nearly achromatic. Next to the diamond the sapphire possesses all the powers requisite for the formation of perfect magnifiers, and presents less difficulty in their construction; hence the expense of employing it is considerably less.—A *compound refracting microscope* is an instrument consisting of two or more convex lenses, by one of which an enlarged image of the object is formed, and then by means of the other employed as an eye-glass, a magnified representation of the enlarged image is obtained. The distance at which the two lenses of a compound microscope are placed from each other must always exceed the sum of their focal lengths, in order that the image may be formed by the object-glass in the anterior focus of the eye-glass. Compound microscopes have been constructed of almost all possible dimensions, from a few inches in length to that of 20 feet; but from experience it appears that whenever their magnitude is augmented beyond a certain point, the effect is diminished, though we suppose the amplifying power of both microscopes the same.—The *solar microscope* consists of a common microscope connected with a reflector and condenser, the former being used to throw the sun's light on the latter, by which it is condensed to illuminate the object placed in its focus. This object is also in the focus of the microscopic lens on the other side of it, which transmits a magnified image of it to a wall or screen (sometimes a combination of two magnifying lenses is used). The magnifying power will be greater in proportion as the focal distance of the object-glass compared with the distance of the wall or screen from the object-glass is less. The principle of the *lucernal microscope* is the same, except that a lamp is used instead of the sun to illuminate the objects; this lamp is enclosed in a lantern, to screen the light from the observers.

MICROCOSM (from μικρος, little, and κοσμος, the universe); the name given to man in the times when astrology flourished, as it was supposed that his organization accurately corresponded to the organization of the universe, called in this case *macrocosmos* (from μάκρος, meaning great, and κοσμος, the universe). The different parts and limbs of man were made to correspond to the different parts of the universe; and engravings are found in works of that time, in which man stands in the centre of the universe, surrounded by lines indicating the various connexions of the heavenly bodies with his limbs. This idea owes its origin partly to the importance which early ages attributed to the position of man in the universe. The earth is at first always conceived of as the centre of the universe; the heavens are a mere dome over the earth, to give light, &c.; and man, the present lord of the earthly creation, is considered actually the lord o all the creation. Close relations between him and the vast cosmological phenomena are then imagined. But the progress of science makes man modest. It shows him that he belongs only to one period of a small planet.—*Microcosm* is still used in a figurative sense for *man*.

MICROSCOPICAL ANIMALS, or ANIMALCULES. *Animalcule* in a general sense denotes a small animal. It is here used to denote one so minute that its form and parts cannot be distinguished without the aid of the microscope. Microscopical animals may be described as more or less translucid, destitute of members, and in which no vestiges of eyes have yet been discovered. They are contractile in whole or in part, possessed of the sense of touch, and nourish themselves exclusively by absorption. If particles of animal or vegetable matter are a few days infused in the most limpid water, on applying the smallest portion of it to the microscope, innumerable such animals of various shapes are discovered. These have been denominated *infusory animalcules*. They are also found in the mud of ditches, the scum of stagnant waters, &c. The origin of animalcules is a point of extreme difficulty, because their existence seems solely dependent on the adventitious union of animal or vegetable substances, and a simple fluid. There is great reason to conclude that their germs exist, not only in the air, but also in the macerating substances, or even in the fluid itself, and are gradually unfolded according to circumstances. Among these, heat and putrescence seem the most indispensable. The degree of heat to which infusions may be exposed, and still produce animalcules, is very different. The smaller species still originate after infusions have been subjected to 212° Fahr. in close vessels. These appear to be capable of withstanding a much greater degree of heat than the larger animalcules. Milk, blood, urine and other animal fluids abound with animalcules after standing a certain time, though in their natural state they do not contain them. There is no certain law with regard to the particular species produced by any particular infusion. In general, several different species will be exhibited, which disappear and are succeeded by others; and sometimes where there are myriads of one kind, a solitary animalcule of a remote genus is found among them. Vinegar is full of minute eels, which are also found in paste. Múller conceives that the sea abounds in animalcules peculiar to itself, and Spallanzani observes that vegetable substances dissolving in sea water produce swarms of animalcules. The minuteness of animalcules surpasses the conception of the human mind. Leeuwenhoek calculates that the size of some is to that of a mite, as the size of a bee to that of a horse; a hundred others will not exceed the thickness of a single hair; and ten thousand of a different species may be contained in the space occupied by a grain of sand. The most powerful microscopes can only discover points in motion in the fluid, gradually decreasing until they become imperceptible to the view. The shape of animalcules is infinitely diversified: one is a long slender line; another is coiled up like an eel or a serpent; some are circular, elliptical or globular; others resemble a triangle or a cylinder. Some resemble thin, flat plates, and some may be compared to a number of thin articulated seeds. One is like a funnel; another like a bell; others cannot be compared to any object familiar to our senses. Certain animalcules, such as the *proteus diffluens*, can change their figure at pleasure, being sometimes extended to an immoderate length, at other times contracted to a point. One moment they are inflated to a sphere, the next completely flaccid; and then various eminences will project from the surface, altering them apparently into animals entirely different. Their peculiar motion is not less remarkable. In several species it consists of incessant gyration on the head as a centre, or round a particular point, as if one of the foci of an ellipse. The progression of others is by means of leaps or undulations; some swim with the velocity of an arrow; the eye can hardly follow them; some drag their bodies along as if with painful exertion, and others seem to remain in perpetual rest. Their food is not yet indisputably ascertained. Probably it consists both of animal and vegetable matter; and they also prey on each other. They propagate by eggs, by living fœtuses, and by a portion of the body being detached. Whether they have any union of sexes, like the larger animals, is keenly contested. The mode of the multiplication of animalcules, by division into two or more parts, was first observed by M. de Saussure. If one of the kinds of animalcules propagating in this manner is isolated in a watch glass, the traces of a contraction around the middle of the body becomes visible, which marks incipient division. The stricture soon increases insensibly, and the animal then somewhat resembles a blown bladder tied tight across. The contraction gradually augments, and the animalcule is at length changed into two spherules connected by a single point. At last they separate, and two perfect animals are produced. Other kinds divide in different manners, which we have not room to describe. We will mention only the *volvox globator*, a globular animalcule of a greenish color, visible by the naked eye. It is frequently found in the water of ditches and marshes abounding with growing vegetables, as well as those in a decomposing state. Its mode of progression is by revolving on itself like a sphere; whence its name. This animalcule consists of extremely transparent membranaceous substances, containing minute globules irregularly dispersed within it. On examination with a very powerful magnifier, the globules appear to be so many young volvoxes, each provided with its diaphanous membrane, and within that again is involved another race of descendants. Some observers have discovered even down to the fifth generation in the parent; others have not been able to see farther than the third. When the volvoxes have attained a certain maturity, the included young begin to move; they detach themselves from the parent, and successively escaping from the investing membrane, swim about. When all have left it, the common envelope, or mother, becomes motionless, bursts and disappears. Then the new volvoxes rapidly increase in size; their included globules likewise grow, they begin to move, the parent bursts, and the young swim at large. By isolating these animals in watch-glasses, the thirteenth successive generation from a single parent has been obtained. The dangers to which animalcules are exposed infinitely exceed those attendant on the larger animals, not only from the noxious qualities imparted to infusions but from evaporation. According to Müller, several of the larger species are destroyed, and totally dissolved, by simple contact with the air. Some he has seen decomposed on approaching the edge of a drop; and others, amidst the rapidity of their course, have been dissolved in a moment. Too much heat and cold are alike fatal to them; the *anguillæ* of vinegar, however, can endure a great degree of cold. Doctor Power remarks that the vinegar may be frozen and thawed several times over, and they will still remain as lively as ever. Some animalcules can be revived after the vital functions have been suspended for a long, perhaps an unlimited, time. This is the case, for instance, with the wheel animal, a singular animalcule. When the water containing this animal evaporates, it becomes languid, the shape alters, and the animal to appearance dies. Its figure is now so diminished and distorted as to have little resemblance to the living animal. It grows dry and hard; yet the animal may still be revived, on being moistened, after days, months, and even years. It has been said that those which have been dead for years, revive as soon as those that have been dry only a few hours. Fontana revived them after being dry for two years. The presence of sand with the water is absolutely necessary for their revival. Animalcules are found in the seminal fluid, but in none of the other fluids of the animal body, if recent.

Midas, the son of Gordius and Cybele, was an ancient king of Phrygia, of whom many fables are related. His story has the *naïveté* of a nursery tale. While he was yet in the cradle, the ants put corn in his mouth, and the soothsayers prophesied that he would acquire great riches. When he was king, and Bacchus was travelling through Phrygia, Silenus lost his way, and strayed to the court of the king. Midas hospitably entertained him, and conducted him back to Bacchus, who permitted Midas to choose whatever recompense he pleased. Midas requested that every thing he touched might become gold, and the god granted his wish. But when even his food was transformed into gold at his touch, he implored Bacchus to take back the fatal privilege. The god then commanded him to go up the river Pactolus, and to dip his head in the sources of the stream, and afterwards to bathe in it. The property of transforming every thing into gold was then transferred to the waters of the Pactolus. Pan and Apollo appointed Midas and Tmolus their umpires in a musical contest. Midas gave to the syrinx of Pan the preference over the lyre of Apollo, and was therefore punished by the latter with a pair of ass's ears. Hence the phrase *ears of Midas*, often bestowed upon ignorant critics. Midas now exerted himself to conceal this ornament of his head by his royal cap; but he was obliged to uncover his head under the hands of his hair-dresser; and, although the king ordered secrecy under the severest penalty, yet the secret weighed upon the barber so heavily that, to unburden his mind, he dug a hole in the ground, and whispered in it, "king Midas has ass's ears," and then covered up the hole. Soon after weeds sprang up on this spot, which, when moved by the wind, murmured the words of the barber. Thus the secret was divulged.

Middle Ages; that period, in the history of Europe, which begins with the final destruction of the Roman empire, and, by some historians, is considered to end with the reformation; by others, with the discovery of America; by others, with the conquest of Constantinople; and again, by some, with the invention of the art of printing; all of which may be right, according to the special purpose of the historian. In general, it may be said, the middle ages embrace that period of history in which the feudal system was established and developed, down to the most prominent events which necessarily led to its overthrow, though its consequences and influence are still very observable in the states of Europe. (See *Feudal System*, and *Chivalry*.) The first centuries of the middle ages are often termed the *dark ages*, —a name which they certainly deserve. Still, however, the destruction of the Roman institutions, by the irruption of barbarous tribes, is often unduly lamented, and the beneficial consequences attending it overlooked. True it is, that many of the acquisitions, which had cost mankind ages of toil and labor, were lost in the general wreck, and only regained by the efforts of many successive generations; the flowers of civilization were trampled under foot by barbarous warriors; the civil developement of society suffered a most severe shock; those nations to which Roman civilization had extended previous to the great invasion of the Teutonic tribes, were thrown back, in a great measure, to their primeval barbarism,* and the unruly passion for individual independence in the northern tribes, greatly retarded the developement of public and private law, and, in some countries, has entirely prevented a regular civil constitution. Though we admit all this, we ask whether those who deplore the irruption of the barbarians, are well aware of the enormous degree to which Roman civilization had degenerated? While, however, the injury which the world suffered from the destruction of Roman civilization, has been often overrated, there is, on the other hand, a class of persons, who laud the condition of Europe during the rudeness of the feudal ages, in a spirit of romantic exaggeration, much like that of certain philosophers, who have treated the savage state as that best fitted to nourish and preserve virtue, the one showing ignorance of history, the other of man. Any one may speculate as he pleases on such subjects, but such speculations are foreign to the spirit of history, whose proper office is to state facts, and show the influence of past ages on the succeeding. The feudal system filled Europe with powerful barons, possessing large landed estates, and commanding the services of numerous armed adherents, and with inferior lords, protected by the former. They were all possessors of land, with arms perpetually in their hands, too proud to follow any laws except those of honor, which they had themselves created, and despising all men of peaceful occupations as ignoble, created to obey and to serve. If, therefore, the classes not belonging to the military caste wished to preserve their independence, they could succeed only by union, which would afford them the means of mutual protection, and enable them to exercise their various callings unmolested, and thereby acquire wealth in money and goods, which would serve as a counterpoise to the landed possessions of the feudal aristocracy. This necessity gave rise to cities. Small cultivators, at first under the protection and superintendence of the counts, bishops and abbots, to whom they subsequently became so formidable, arose, and attained (particularly in the eleventh century) through their own industry and skill, to a state of prosperity, which enabled them to purchase their freedom, and soon to obtain it by force. They did not remain stationary; but small states began to grow into great ones; and the most of them became so bold as to acknowledge no superior except the highest authority of the country to which they belonged. Strong, high walls, impenetrable by the rude military art of the time, secured, in conjunction with the valor of the citizens, the freedom of the cities, and protected them from the tyrants of the land; well-ordered civil institutions preserved peace and prosperity within, and were secured by the wealth acquired by trade and manufacturing industry. Many of the nobility themselves, attracted by the good order and prosperity of the cities, established themselves there, and were ambitious of obtaining the offices of government in these commonwealths. In fact, they soon usurped the exclusive possession of them, in many of the cities. The looser the social organization in any state, and the more intolerable the pride of the nobility, the greater became the prosperity and power of the cities, which grew, at length, so great that, in Germany and Italy, these republics were formidable even to the emperor. In Arragon, the third estate was fully developed as early as the twelfth century. In England the cities, in conjunction with the barons, obtained the *Magna Charta*, in 1215, and, in France, they increased, in consequence, from the circumstance that Louis the Fat and his successors, particularly Philip the Fair, 200 years after him, found it their best policy to protect them against the nobility, and thereby increase their own means of resisting that order. But the cities of these countries never attained the importance of those of Germany and Italy. What single cities could not accomplish, was effected by the union of several; as the league of the Lombard cities in Italy; the Hanseatic, Rhenish and Suabian leagues, in Germany (see *Italy*, and *Hanseatic League*), appeared, at the same time, as great and formidable powers. Under the protection of such associations, and sheltered by the walls of the cities, all arts and trades, and every kind of civilization, made rapid progress. Many of the important inventions, which we now prize so highly, originated among the citizens of these small free states, or were suggested by their active commercial and manufacturing spirit. With constitutions similar to those of antiquity, the same spirit appeared to be awakened; all the virtues and vices of Athens, Sparta and Rome, are found in the free states of Italy, where even the climate resembled that of the republics which had perished 1500 years before. There was the same love of country, strict morals, and valor, the same (but more violent) party contests, the same changes of administration, and ambitious intrigues, the same (though differently directed) love of arts and knowledge. But the communities were not exempt from the influence of the domineering spirit of the times, which they opposed. The overwhelming power of individuals, so dangerous to all free states, became, through this spirit, doubly formidable, and compelled the oppressed portion of the citizens, in the same distress which had given rise to their parent city, to have recourse to the same means of relief. They bound themselves together for the protection of their rights. Such associations, usually formed among people of the same trade and having for their object, next to security from external enemies, the maintenance of internal order in these stormy times, were called *corporations*, or *guilds*, and were under the direction of a master. The strictest regulations appeared necessary for the attainment of this object. No one, without serving an apprenticeship of years, and advancing through certain degrees, could become a member. At a later period, admission into the corporation was purchased by individuals who did not follow the business of the members, but wished to share in the advantages of the associations. For in the fourteenth century, the corporations became so powerful as to obtain almost exclusive possession of the government of the cities, which, until this period, the nobility had mostly retained in their own hands. The corporations now taught them that, as they contributed not to the prosperity of the city by their industry, it did not become them to govern it. The nobility, so far as they continued in the city after this removal from power, preserved themselves in close connexion, and those who resided in the country formed confederacies against the power of the cities. Associations which, to the best men, appeared the only means of security from the disorders of the time, became so universal, that, almost every where, persons of the same trade or profession were closely united, and had certain laws and regulations among themselves. Knowledge itself, in the universities, was obliged to do homage to this spirit, and the liberal arts themselves, in the latter part of the middle ages, were fettered by the restraints of corporations (see *Master-singers*), so that knowledge as well as arts was prevented from attaining that perfection which the secure life of the city seemed to promise them; for nothing more impedes their progress than that pedantry, those prescriptive and compulsory rules, that idolatrous veneration for old institutions, which are inseparable from such associations. So also the most remarkable institution of that time, its characteristic production—chivalry—exhibited all the peculiarities of the corporations. War was the profession of the nobles. No one of their order, who was not a knight, could bear a lance or command cavalry; and the services of years, as an attendant or squire, were necessary to entitle even one of the highest order to be dubbed a knight. But squire, knight and baron were all inspired with the same spirit of honor, pride, love and devotion. The religious zeal of the middle ages produced actions almost inconceivable to the cooler spirit of our time. We see hundreds of youths and maidens, in the flower of their age, shutting themselves up in gloomy walls, or retiring to wild deserts, and spending their lives in prayer and penance; we yearly see thousands, barefoot and fasting, travelling many hundred miles, over sea and land, to pray at the grave of their Master; we see hundreds of thousands thronging thither, from age to age, with the cross and sword, at the risk of life, to deliver the Holy Land from the pollution of infidels. This enthusiastic spirit was peculiarly suitable to soften the ferocity of the age; but ambitious men artfully turned it to their own selfish purposes. Intolerance, the destruction of the Jews and heretics, the luxurious splendor of the papal court, and the all-embracing system of the hierarchy were the unhappy fruits of this mistaken spirit. In opposition to the secular power, resting on the feudal system, and supported only by armies of vassals, the pope formed, from the archbishops, bishops and priests, still more from the generals of religious orders, provincials, abbots and monks, an immense army, invincible through its power over the conscience, and through the spiritual weapons which belonged to it and to its head. From the general belief in his possession of the power to make happy and unhappy in both worlds, to bind and loose for eternity, the pope ruled, with absolute sway, the minds of Christians. All the kings of the West acknowledged him as the living vicegerent of Christ. Many were vassals to him; many tributary; almost all obedient and subject to him, or, in a short time, victims of a vain resistance. At the time in which little idea was entertained of restraining princes by constitutional laws, and when the spirit of the times allowed them to dare whatever they could do, it was an inestimable advantage that the pope aided the people for centuries in opposition to their usurpations; but the luxury, cruelty, ambition, and hostility to the diffusion of knowledge, which pervaded the clergy, from the pope down to the lowest mendicant friar, has left a deep stain upon these times. In vain did men like Arnold of Brescia and the Waldenses, Wickliffe, Huss, and their followers, endeavor to overthrow the hierarchy by reminding the people of the simplicity and purity of the primitive church. They found their contemporaries, accustomed to the supremacy of the church, not yet ripe for freedom of mind, and inattentive to their remonstrances; and their noble endeavors, in a great measure, failed. The hierarchy was able to erect new bulwarks against new enemies; mendicant orders and the inquisition were instituted to prevent the dawning light of the thirteenth century from entering the kingdom of darkness; excommunications and interdicts held Christendom in terror; till at length, when the signs of the times, the diffusion of a free spirit of investigation, the establishment of a more rational order in monarchies, and the cooling of religious enthusiasm, announced that the middle ages were drawing to a close, Luther proclaimed that Europe would no longer be held in leading-strings. The ages of which we have been speaking, so full of battles and adventures, of pride and daring, of devotion and love, must have been poetic times. The knights were particularly disposed to poetic views by lives spent between battle and love, festive pomp and religious exercises. Hence we see poets first appearing among the knights in the twelfth century. In southern France, where chivalry was first established, we see the first sparks of modern poetry. The Provençal Troubadours, who principally sung at the court of Berengarius of Toulouse, are the founders of it. Soon after them, the French Trouvères (*ménétriers*) and the German Minnesingers sang in their mother tongue; the Italians at first, from mistrust of their vulgar tongue, in the Provençal; and the English, from the same cause, in the French language. But the minstrels soon formed, among the latter also, a national poetry; and the Italians, at a later period, after the great Dante brought the Tuscan dialect into honor, obtained, by the improvement of it, a high poetic fame. In Spain, the Catalonian poetry was the same as the Provençal, but the Castilian and Portuguese borrowed more from the Arabians. With lyric poetry the epic was also developed in great beauty and power. Its mystic tone, its indefinite longing for something more elevated than the realities of earth, entitle us to distinguish this epic from the ancient, by the name of *romantic*. (See *Romantic*.) The romantic epics of the middle ages are mostly confined to three cycles of stories. Italy remained a stranger to these, but her great Dante was worth them all, and stood high above them, though the tone of love and devotion which predominates in his poem, sprung from the character of the times. The first of these cycles of stories is the truly German *Nibelungen*, and the stories of *Siegfried*, *Attila*, *Dietrich of Berne*, *Otnit*, *Hugdietritch* and *Wolfdietrich*, and other heroes of the time of the general migration of the nations, which belong to it. Next to these stories stand the equally old tales of the British king Arthur, his Round Table, and the *Sangraal*, which, in accordance with old British or Cymric fables, were sung in France, and afterwards by German minstrels, and to which *Titurel*, *Parzival*, *Tristan*, *Iwain*, *Lohengrin*, *Gawain*, *Daniel of Blumenthal*, the *Enchanter Merlin*, and others belong. To these two was added a third, originally French, collection of stories, of *Charlemagne and his Peers*, of *Roland*, the *Enchanter Malegys*, and the *Four Sons of Haymon*. The romance of *Amadis de Gaul* belongs peculiarly to the Spanish, and to neither of these three collections. (See *Chivalry*.) Besides these subjects, the poetic appetite of the middle ages seized upon the historic events of ancient and modern times, particularly the deeds of Alexander the Great, and the crusades, likewise upon Scripture history, and even upon the subjects of the ancient epics of Homer and Virgil, for new poetical works. But whether from political causes, or, as we believe, from the downfall of chivalry, and from an increasing spirit of reflection, the last centuries of the middle ages were highly unfavorable to poetry. The voice of the minstrel was almost entirely silent in Germany, France and Spain, even in the fourteenth century; but Italy had now its Petrarch and Boccaccio,andEngland itsChaucer. In the thirteenth century, there was not a story in the cycles above-mentioned, which was not eagerly sung by many poets; and more than 1400 love songs, by 136 poets of this century, are contained in the Manesse collection alone (see *Manesse*); but hardly a single poet appeared among the knights, after the fourteenth century. The epic poems of former times gave place to prose romances, in which their stories were diluted, and the lyric poetry, in France and Germany, fell into the rude hands of the Master-singers (q. v.), who, by a studied observance of rules, preserved its formal existence. So did it continue till the fifteenth century, which, attentive only to the great events that were in preparation, and the struggles which preceded them, and actuated by the spirit of reflection from which they proceeded, was far removed from that free flow of feeling which had given birth to the poetry of the past time. It was not till the end of the middle ages, when the early spirit of poetry lived only in remembrance, that Ariosto took the stories of Charlemagne's peers from the nursery, and gave them new dignity. Spain and

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* These nations, in point of civil institutions, had undoubtedly advanced much beyond the German tribes, whom the victories of Arminius (which preserved them independent of Rome) had, at the same time, prevented from receiving the benefits of the Roman law and social organization.

England received a new national poetry from Cervantes and Shakspeare. But how great is the difference between these creative geniuses, complete masters of their subjects, who poured forth their whole souls in their poetry, so that one knows not which most to admire, the feeling which inspires, the fancy which adorns, or the understanding which regulates them, and whose humorous (often ironical) tone proclaims them the offspring of modern times, and those simple poets of the middle ages, who took the world as it was, and were rather the organs of the spirit of poetry in the people, than independent poets! Among the arts of the middle ages, architecture was distinguished by its peculiar character. In the noblest buildings of antiquity, the form of the first rude dwelling-houses is not to be mistaken; they appear only as the ornamented forms of abodes which necessity created, and can only be called fine buildings; but the Gothic architecture of the middle age was founded on a deep and great conception. This conception, which appears in the union of the grandeur of great masses with the most finished delicacy of parts, was the representation of the world. The other arts, which, in the fourteenth and fifteenth centuries, came from Greece into the Western world, attained their greatest splendor, in the middle ages, upon the Lower Rhine and in Italy. (See *German Painting*, and *Italian Art*.) The weak side of the middle ages is the scientific. The youthful spirit of the time, bent upon action, could not devote itself to a sedentary life and continued study. The efforts of Charlemagne, to encourage science and instruct the people, hardly produced any effect beyond his life; for they were not in the spirit of the time. Several centuries after him, the German tribes considered no knowledge of use, but that of managing the lance and the steed. The barbarism was so great, that most of the laity, even the most distinguished, could scarcely read or write. He who was instructed in these, was considered a distinguished scholar, and he who obtained more knowledge, particularly in mathematics or natural science, exposed himself to the danger of being burnt as a sorcerer. But the monks, by their retired situation, and the leisure which they enjoyed, as well as by the necessity of some knowledge of the Latin language, which the Roman Catholic ritual required, were driven to a more literary employment, to which they were educated, in the schools of the cathedrals and convents. But their literary labors were confined to the copying of the old writers, particularly the fathers of the church, and to accounts of the occurrences of the times in meagre chronicles. Nevertheless we are indebted to them. Through their activity the valuable remains of ancient times, materials and incitements to new improvements, have been, in a great measure, preserved to us; and from their annals we gather our only knowledge of the events and manners of that time. Moreover the Latin literature, which was common to all the people of the West, not merely in the affairs of the church, but in science and public transactions, produced a certain agreement in their general character, which contributed much to promote intercourse and improvement. The East has no middle age, like that of Europe; yet the introduction of Mohammedanism and the Arabic literature, make epochs there. But as the spirit of man is hostile to a partial developement, in the eleventh century the need of thinking was again felt in Europe; the taste for knowledge awoke, here and there, partly by means of the monasteries, but afterwards through the arts and industry which prevailed in the cities; study was encouraged by Henry II of England, the Hohenstaufen, St. Louis, the Alphonsos and other intellectual princes. From these times (the periods of Lanfranc, Abelard, John of Salisbury, and others), the middle ages produced distinguished individuals, whom the coldness of their contemporaries in the cause of science only urged to a more ardent pursuit of it. Meantime the necessity was felt of defending the doctrines of the church against unbelief and heresy. This led to the sharpening of the intellect by dialectics; hence the church dogmatics, or theology, was formed, from which philosophy at length proceeded. As, in scholastic theology, the dogmas of the church were early received as authority; so, in the domain of laws, the Roman code soon obtained a complete ascendency; and the jurisconsults of that time were never weary in studying it, learning it by heart, and explaining it by glossaries and illustrations. The students of philosophy pursued the same course with the subtle Aristotle, for whom the middle ages, although acquainted with him only through Arabic translations, or *rifacimentos*, had an unbounded respect. Unfortunately, however, for the progress of philosophy, these commentaries, glosses and abridgments occasioned the neglect of the original. When the union of scholars, in particular places, gave birth to universities, these received the stamp of the time, both in the corporate character which was given them, and the absorbing interest which was taken in the study of dialectics. Only jurisprudence, theology, and what was called *philosophy* (which was, in fact, the art of disputing with subtilty upon every subject), were taught; and these sciences, especially since the middle of the twelfth century, had degenerated into a mere tinkling of scholastic sophistry. Medicine, as regards any useful purpose, was taught, at this time, only by some Arabs, and students of Salerno who had been instructed by them; in other respects, it was a slave of astrology, and an object of speculation to ignorant impostors, principally of the Jewish nation. Philology flourished in the time of Lanfranc and Abelard, but was again forgotten in the eleventh and twelfth centuries. Notwithstanding the unprofitable character of what was taught at this time, teachers stood in high esteem, and the highest academic rank was considered equal to knighthood. The universities, on their side, showed themselves worthy such honor by their independence of pope and prince. With all its worthlessness, the disputatious spirit of the time had this good effect, that truths were advanced and maintained in the universities, which were alarming to the vigilant hierarchy; and Luther's theses, in Wittenberg, contributed in no small degree to bring on the reformation, and thereby to the shedding of new light upon science. Yet the reformation did not (as many are inclined to believe) give the first signal for higher intellectual endeavors and freedom of thought; it was rather produced by this striving and this freedom, which had originated some centuries before, with the flight of the Greek scholars from Constantinople, and the invention of the art of printing, had been encouraged by the lovers of science among the princes of Italy, and had shone forth, even in Germany, in the brotherhood of Deventer, in Wessel, Erasmus, Celtes, Reuchlin, and others. But with the appearance of these men, with the rise of the sun of the new day, the romantic twilight of the middle ages faded away.—We shall now give briefly the chief epochs of the history of the middle ages, leaving more copious details to the articles on particular countries and men. The formation of separate Germanic states succeeded the general irruption of the barbarians, and was followed, after some hundred years, by the universal monarchy of Charlemagne. This had only a short continuance; but it left the idea of the unity of the whole of Christendom under a spiritual head, and under the temporal protection of the newly-revived Roman empire—an idea which had a powerful influence during the whole of the middle ages. New modifications of the European states after the fall of the Carlovingians: the devastations of new tribes of barbarians; of the Saracens in the south, of the Normans in the north and west, and the Hungarians in the east, all of whom, at length, became subject to the Germanic power. Colonies of the Normans in France, Italy and England. From these romantic adventurers especially proceeded the spirit of chivalry which made its way through all Europe. Christianity gained a footing among the Sclavonian tribes. Struggles between the spiritual and secular power convulsed Christendom. The idea of their unity, as well as of knighthood, is ennobled in the crusades, whose success these discords frustrated. Origin of the cities and of the third estate. Commerce with the East, by means of Italy and the Hanse towns. Corruption of the clergy, at two epochs, after Charlemagne and after Gregory VII. Mendicant orders, and the inquisition. Decline of the imperial dignity in Germany and Italy. Desolation of these countries by private warfare. Other kingdoms are now enabled to obtain more solidity. The flourishing of new arts and knowledge. Universities. The popes humbled by their dependence upon France and the great schism. Councils at Constance and Basle. Subjection of the Greek empire; hence the formidableness of the Turkish power to the west of Europe; and hence, also, the diffusion of learning by the fugitive scholars of Constantinople. Printing. The discovery of the New World, and of a way by sea to the East Indies. Reformation. (See Hallam's *View of the State of Europe during the Middle Ages* (3d edit., London, 1822); Berington's *Literary History of the Middle Ages*, etc. (London, 1814); Sismondi's *Hist. des Républiques Italiennes* (3d edit., Paris, 1825); Rüh's *Handbuch der Geschichte des Mittelalters* (Berlin, 1818); Rehm's *Handbuch der Geschichte des Mittelalters* (Marb., 1821 seq., 2 vols.)

Middleburg; capital of the province of Zealand, kingdom of Holland, situated in the centre of the island of Walcheren; lon. 3° 37′ E.; lat. 51° 30′ N.; population, 13,200. The town-house was formerly a rich and celebrated abbey, founded in the year 1256. It has six Calvinist churches and an athenæum or academy, which affords nearly the same course of instruction as a university. The fortifications of Middleburg were formerly very strong, but are not now kept in repair. It preserves its circular mound of earth, divided into bastions, and surrounded by a broad and deep ditch. (See *Netherlands.*)

Middlebury; a post-town, and capital of Addison county, Vermont, on both sides of Otter creek; 32 miles south of Burlington, 32 north of Rutland, and 51 south-west of Montpelier; lon. 73° 10′ W.; lat. 43° 50′ N: population, in 1820, 2535; in 1830, 3468. It has extensive manufactures and considerable trade. It contains a court-house, two academies (one for males and one for females), a college, a printing-office (which issues a weekly newspaper), three churches, one for Congregationalists, one for Methodists, and one for Episcopalians. The width of the river here is about 170 feet, and there are falls of 20 feet perpendicular, which afford water-power for many mills, &c. There are two cotton manufactories, a nail manufactory, and a marble manufactory. The marble here wrought is found within a few feet of the manufactory. It is of good quality, and in great abundance. The amount manufactured annually has been sold for about $8000. Besides these, there are various other manufactures in the village. Middlebury college was incorporated in 1800. It is pleasantly situated, on ground elevated 342 feet above lake Champlain, and is a respectable and flourishing seminary. The funds of the college are not large, having been formed solely from individual grants. There are two college buildings, one of wood, three stories high, containing a chapel and 20 rooms for students; the other, a spacious edifice of stone, 108 feet by 40, four stories high, containing 48 rooms for students. The college library contains (in 1831) 1846 volumes; the students' libraries, 2322. The number of students is 99; whole number that has been graduated, 509. The philosophical apparatus is tolerably complete. The board of trustees, styled "the president and fellows of Middlebury college," is not limited as to number. The executive government is composed of a president, five professors, a lecturer on chemistry, and two tutors. The commencement is held on the third Wednesday in August. There are two vacations; one from commencement, five weeks, the other from the first Wednesday in January, eight weeks.

Middleton, Conyers, a learned English divine and polemical writer, was born at York, in 1683, and was the son of an Episcopal clergyman. He became a student, and afterwards a fellow of Trinity college, Cambridge, in which situation he attracted some notice by his quarrel with the celebrated doctor Bentley (q. v.), the master of his college. In 1724, he visited Italy, and, on his return, published a tract, designed to show that the medical profession was held in little esteem by the ancient Romans; and, in 1729, appeared his Letter from Rome, on the conformity between popery and paganism. Not long after, he obtained the Woodwardian professorship of mineralogy, which he held till 1734, when he was chosen librarian to the university. In 1735, he published a Dissertation concerning the Origin of Printing in England. His greatest literary undertaking was the History of the Life of M. T. Cicero (2 vols., 4to., 1741), in which he displays an intimate acquaintance with his subject, accompanied with a degree of elegance in his style and language which entitle him to rank among the principal modern historians of England. In 1743, he published the Epistles of M. T. Cicero to Brutus, and of Brutus to Cicero, with the Latin Text and English Notes, a prefatory Dissertation, &c. In 1747, doctor Middleton published his Free Inquiry into the Miraculous Powers which are supposed to have subsisted in the Christian Church from the earliest Ages through several successive Centuries. This treatise brought on the author the imputation of infidelity, and occasioned a warm controversy, which was continued after his death, in 1750. His miscellaneous works have been published in 2 vols., 4to., and 5 vols., 8vo.

Middleton, Arthur, a distinguished patriot in the revolutionary war of the U. States of America, was of a highly respectable English lineage. His grandfather Arthur was a man of high standing and great influence in the colony of South Carolina; and his father, Henry, was one of the presidents of the first continental congress. The son was born in the year 1743, on the banks of the Ashley river, South Carolina. He was sent, at an early age, to England, to be there educated. He was first placed at the well-known school of Harrow on the Hill, whence, at the age of fourteen, he was transferred to that of Westminster. In both, he made great proficiency in the Greek and Latin classics. Having passed regularly through Westminster school, he was entered, between the age of eighteen and nineteen, in Trinity college, Cambridge. He left this institution in his twenty-second year, with the reputation of a sound scholar and moral man. After visiting many parts of England, he passed two years in making the tour of Europe. In 1773, he fixed his residence at his birth-place. In the following year, he engaged warmly on the side of the colonies, in the disputes between them and the mother country. As a member of the first council of safety chosen by the provincial congress of South Carolina, he advocated and suggested the most vigorous and decisive measures. After serving on the committee to prepare and report a constitution for South Carolina, he was elected by the assembly one of the representatives of the state in the congress of the U. States, then convened at Philadelphia. In this capacity, he signed the Declaration of Independence. He and Hancock formed a joint domestic establishment, and exercised a munificent hospitality, which was deemed salutary in uniting socially the members from the two extremities of the Union. Mr. Middleton held his seat until 1777, always strenuous in the cause of independence. The post of governor of South Carolina was offered to him in 1778, but he declined it because he could not approve the new constitution which was that year framed for the state. In 1779, he distinguished himself in the defence of Charleston against the British, who afterwards ravaged his plantation and rifled his mansion. In the following year, he became their prisoner; in November, 1780, was sent to St. Augustine, and, in 1781, was included in a general exchange of prisoners, and sailed for Philadelphia. Soon after his arrival in that city, he was appointed by the governor of South Carolina a representative in congress. In 1782, the general assembly of the state elected him to the same station. When the revolutionary contest terminated, Mr. Middleton returned to his native state. He afterwards served in the legislature of South Carolina, for the purpose of effecting a reconciliation of parties. The remainder of his life was spent in elegant and philosophical ease. Mr. Middleton incurred an immense loss of property by his course during the revolution. In November, 1786, he was seized with an intermittent fever, which caused his death Jan. 1, 1787. He has been justly described as "a model of private worth and public virtue; accomplished in letters, in the sciences and fine arts; a firm patriot, and enlightened philanthropist."

Middletown; a city, port of entry, and capital of Middlesex county, Connecticut, on the west bank of Connecticut river, 34 miles above its mouth; 15 miles south of Hartford, and 25 north-north-east of New Haven; lon. 72° 54′ W.; lat. 41° 35′ N.: population, in 1820, 2618, and, including the township, 6479; in 1830, including the township, 6892. The Indian name was *Mattabeseek*. It is a pleasant town, and has considerable trade and manufactures. It contains a court-house, a jail, two banks, and houses of public worship for Congregationalists, Baptists and Methodists. In 1816, Middletown owned more shipping than any other town in Connecticut. Vessels belonging to Hartford, and other towns on the river, are registered here. The river is navigable to Middletown for vessels drawing ten feet of water. Two miles above the city, within the township, there is a village called *Middletown Upper Houses*, containing a post-office. Two miles from the city, there is a lead mine, which was wrought during the war. A college has been established at Middletown, styled the *Wesleyan University*, which commenced instruction in the month of August, 1831.

Midianites; an Arabian tribe, represented, in the Old Testament, as the descendants of Midian, son of Abraham by Keturah (*Gen.* xxv, 2), and described as engaged at an early period in a commerce with Egypt. They dwelt in the land of Moab (Arabia Petræa), to the south-east of Canaan. One portion of them inhabited the country to the west of mount Sinai; another portion dwelt on the east of the Dead sea. The Midianitish women having entered the Jewish camp and seduced the Israelites, Moses was directed by the Lord to send 12,000 men into their country, and cut off all the inhabitants, except the virgins. This order was executed, and the victors brought off a rich booty of 32,000 virgins, 675,000 sheep, 72,000 oxen, and 61,000 asses.

Midwifery is the art of aiding and facilitating childbirth, and of providing for the preservation of the health and life of the mother during and after her delivery. It is founded on physiological and pathological science. Midwifery, in some form, has been employed from the most ancient times, even among the rudest nations, although it was at first very defective, and consisted, probably, only in the most obvious and indispensable manual applications and aids. Even in the most cultivated nations of antiquity, this art was in a low state. The Israelites had their midwives. The first accounts of scientific male midwifery are to be found among the Greeks of the age of Hippocrates (who died 357 B. C.). From the writings of that period, we learn that the obstetrical art had then reached a higher degree of cultivation among the Greeks than in most parts of Europe during the last century. Notwithstanding, there was much that was wrong and injudicious in their system, and only a small part of the proper means of assistance was made use of. They often contented themselves with invoking Ilithyia, the goddess of childbirth. Among the Romans, midwifery was confined to a few simple aids, and sacrificing to Juno Lucina, and other deities who presided over childbirth. It was not till a later period, that the Roman women commonly employed midwives; but, in difficult cases, the physicians were called in. These were either Greeks living in Rome, under the dominion of the Roman emperors, or they drew their knowledge chiefly from Greek authors. To this epoch belong particularly Soranus (100 A. D.) and Moschion, who composed the first manual of midwifery which has come down to us. In the middle ages, the science was very much neglected: it was confined to the cutting of the fœtus from the body of the mother, in case of her death before delivery. In consequence of the injudicious interference of the popes, who conferred the professorships in the newly-established schools on the monks, and gave them the privilege of practising physic, while they strictly prohibited the practice of surgery and anatomy, both to the physicians and laity (1215), the obstetric art became more confined to internal and superstitious applications, and, indeed, generally sunk into the hands of women, monks, peasants, and other ignorant persons. When they had exhausted their medical skill, the saints were invoked, images and relics were hung upon the woman in labor, &c. The art continued in this state till the sixteenth century. At this time, the improvements in printing and engraving gradually introduced a better era, since the surviving works of the Greeks, Romans and Arabians were multiplied, the intellectual intercourse among men became more general, and the spirit of inquiry was awakened, and found a wider field. At this period, the business of midwifery was so exclusively in the hands of women, that it was disgraceful for a man to engage in it. Such an undertaking was considered as an abominable attempt on the virtue and honor of the female sex, and he who ventured upon it, as a magician. In Hamburg, in 1521, one Veites was condemned for this offence to the flames. Several books, however, were published for the better instruction of midwives in their profession. The first was by Eucharius Roslein, at Worms, called the *Rose-Garden for Midwives and pregnant Women* (1513). The science of anatomy, which was now more freely studied and patronized, also contributed much to the improvement of midwifery, in which Vesalius, in Padua (1543), particularly distinguished himself. The physicians and surgeons turned their attention only to the theoretical part of the science, but the latter gradually proceeded to the practice of it, by performing the Cæsarean operation on women who had died in childbirth (which was now not only permitted, but commanded by law), and gradually undertaking other operations on women pregnant and in labor. Francis Rousset, a surgeon in Paris, published a treatise, in 1581, in which he brought several proofs of the possibility of safely performing the Cæsarean operation on the living mother, and it was he who first gave this operation its present name. After the publication of this treatise, the operation was frequently performed on the living subject, both in and out of France, and sometimes even when it was not unavoidably necessary. Pineau, a surgeon in Paris, first suggested, in 1589, the section of the pubes, by the observations which he communicated on the separation which takes place between the bones of the pelvis, for the purpose of facilitating birth, when made difficult by the extreme narrowness of the pelvis. In Germany, midwifery long remained in an imperfect state: the midwives were generally ignorant, and men were seldom employed; while, in France and Italy, it was already a common thing to call in the aid of physicians and surgeons. A surgeon of Paris, Clement, distinguished in the practice of midwifery, who had attended La Valiere, the mistress of Louis XIV, in her delivery, first received the name of *accoucheur* as a title of honor. The surgeons were so well pleased with the name, that they gradually adopted it as a general appellation. Henry of Deventer, a surgeon of Holland, was the first who, in 1701, endeavored to establish midwifery on scientific principles.

In France, where the art had risen to higher perfection than in other countries, a school for midwives was established in the *Hôtel Dieu*, in 1745. The history of the origin and invention of the forceps, that highly useful instrument in midwifery, is involved in some obscurity. Between 1660 and 1670, Chamberlen, a London surgeon, professed to have invented an instrument with which he was able to terminate the most difficult labors without injuring either the mother or child; but he kept this discovery to himself, and, in 1688, went to Amsterdam, where he sold it to certain practitioners, who turned it to their profit. It was thus kept secret among certain persons for a long time. At last, Palfyn, a famous anatomist and surgeon of Ghent, in Flanders, got some knowledge of the instrument, and caused one to be made, 1723. Some species of forceps appear to have been known even in the time of Hippocrates; but the merit of Chamberlen's invention consisted in making the blades separable, and capable of being locked together after having been introduced into the vagina, and placed one on each side of the head of the child. It was afterwards very much improved, especially by Levret, in Paris, 1747, Plevier, in Amsterdam, 1750, and Smellie, in London, 1752. The art of midwifery was also perfected by the writings and instructions of these men. Germany, too, produced several men of eminence in this department of the medical art, who were not only famous for their operative skill, but contributed much to the advancement of midwifery by their observations, and to the diffusion of correct principles on the subject by their lectures and writings. The establishment of several schools of midwifery also facilitated the study of the art, and brought it to the degree of perfection which it now boasts. Those physicians of recent date, who have contributed most to this art in Germany, are the two Starks in Jena, Osiander in Göttingen, Siebold in Würzburg, Wigand, Nägele, Boer, Jörg, &c. The course now adopted seems to be the true one, viz. by the cultivation of all the branches of knowledge connected with this department, to determine the cases in which art may and ought to be passive, and leave the work to nature, and those in which nature is insufficient to accomplish the delivery alone, or at least without injury to the mother or child.

Mieris, Francis, a very celebrated painter of the Dutch school, was the son of a jeweller at Leyden, where he was born in 1635. He was the pupil of Vliet, Gerard Douw, and Van den Tempel, and he is generally considered as the principal scholar of the second. His works consist of portraits, and scenes in common life. He possessed the delicate finish of Gerard Douw, with more taste in his designs; his coloring, too, is more clear, and his touch more spirited. He usually worked for a ducat an hour; but, through his intemperance, he always remained in poverty. One of his finest productions was a picture of a young lady fainting, a physician attempting to recover her, and an old woman standing by; and for this 3000 florins were vainly offered by the grand-duke of Tuscany. Mieris died at Leyden, in 1681.—He had two sons,—*John*, the elder, who gave great promise of excellence, but died in 1690, at Rome: the younger, *William Mieris*, was the pupil of his father, and adopted his style, in which he showed great talent. He died in 1741.—His son, *Francis Mieris*, the younger, was also a painter, but was not very successful. He published several works relating to the history of the Low Countries, and the lives of their sovereigns.

Mignard, Pierre; a French painter, born at Troyes, in 1610. His father, discovering early indications of his talent for painting, placed him, when eleven years old, at Bourges, in the school of Jean Boucher; and the young artist next studied the works of Primaticcio, Rosso and Nicolò dell' Abbate, in Fontainebleau. He afterwards became a pupil of the celebrated Vouet, and, in 1636, went to Rome, where he formed himself by the study of the masterpieces of Raphael and Titian. His historical paintings and portraits, among which were those of Urban VIII and Alexander VII, soon gained him reputation; and he also painted a great number of portraits in Venice. In 1658, Colbert engaged him to return to France in the service of Louis XIV, and Mignard was placed at the head of the academy of St. Luke, and, after the death of Lebrun, with whom he was constantly at war, became chief painter to his majesty. At this time, he executed one of the greatest fresco paintings which France possesses—the dome of the Val-de-Grace. It represents the region of the blest: in the centre of a great number of saints, martyrs prophets, &c., is queen Anne (of Austria) presenting to God the model of the new church. He also adorned the palace of St. Cloud with numerous mythological paintings, executed several works at Versailles, and painted portraits, &c. Besides the posts already mentioned, the direction of the royal collections of art, of the academy of painting, and of the Gobelin manufactory, was conferred on him. He continued actively engaged in his art until his death, in 1695. In respect to invention and composition, Mignard is not entitled to rank among profound and original geniuses; yet the grace and loveliness which characterize his works, particularly his Madonnas, the brilliancy and harmony of his coloring, and the ease of his pencil, atone for many defects. His talent for imitation of other masters was remarkable; he deceived the ablest judges, and, among them, his rival Lebrun, by a Magdalene in the manner of Guido.

Migration of Animals. The migration of animals, that is, the travelling of a large number of the same species toward a certain place of destination, or in a certain direction, is one of the most remarkable phenomena in natural history. Migration takes place with quadrupeds, fishes, birds and insects. As to the first, it does not appear that any of them migrate periodically and regularly, like many species of fish and birds, for which a sufficient reason may be found in the almost uninterrupted passage which air and water permit, whilst the land offers many impediments to change of place. Yet some quadrupeds are suddenly seized by the desire of migration. The lemming rat, which is found in the northern parts of Europe, migrates at irregular periods, when a severe winter is approaching, in incredible numbers, and always in a straight line, stopping not for rivers or lakes. Some other quadrupeds, also, occasionally move in large numbers, and for considerable distances; but these expeditions do not take place at regular periods, and seem to be owing to accidental causes. The buffaloes (properly bisons), in the western wilds of North America, and the wild horses, sometimes take long journeys in large bodies. Some fishes, also, remove into warmer situations during winter; thus the salmon leaves the rivers and shores, on the approach of winter, to seek the warmer waters of the deep sea. Other fish do the same. The cod-fish move, in great numbers, about the month of May, from the northern seas toward Newfoundland. The shoals of herrings, which periodically traverse the ocean, are innumerable. The same is the case with the mackerel, pilchard, anchovy, &c. That insects migrate is well known, for instance, locusts (q. v.), ants (q. v.), &c., and move, with surprising obstinacy, in a given direction. The animals, however, with whose migrations man is most familiar, and which appear to migrate most regularly, are some species of birds. The facts which are known relative to this point are very curious, and yet leave a vast field for interesting observation. Some birds regularly return, after a certain absence, not only to the same country, but to the same spot where they built their nests before, or where they were bred. Many storks, which become half tame in Germany, have been marked, and found to return regularly to their old nests, built on a wheel, which the peasants of that country, particularly in the north, place, for that purpose, on the corner of the roofs of their houses. The same is related of swallows, and other birds of passage. Other birds do not return to a particular country, but travel, according to circumstances, from one to another. Among the former are some which remain in the country of their nativity only as long as is necessary to breed and bring up their young; others are absent but for a very short time. The loriot remains but three months in the middle regions of Europe, whilst the lark is absent but for a very short time. Mr. Brehm, a German, has collected many interesting facts respecting the birds of passage. Generally speaking, they are determined as to the place where they build their nests, by the means of subsistence which they find, as, for instance, the grosbeak, goldfinch, pigeons, cranes, landrails, several species of herons, woodcock, geese, ducks. In 1819, the fruit of the pine tree being scarce in the north of Europe, whilst it was very abundant in the central parts, large numbers of the crossbill, which chiefly lives upon this food, were found in the latter regions. The drought, in 1819, made the meadows around Altenburg, in Saxony, very dry, and no landrails (in general frequent there) were seen during that season. They had fled to the valley of the Rhine, where the drought had been less. The cold in the winter, also, has much influence on the migration of birds. The winter of 1821—1822 was very mild in Middle Europe, whilst, in the north, it was unusually cold, in consequence of which many birds were seen in Germany which hardly ever quit the northern regions. Some birds of Bohemia went to Switzerland, and some birds arrived in France which never had been seen there before. The contrary took place during the following winter, when the mercury stood, in Germany, much lower than in Sweden. Hunters, and other people living much in the open air, know that certain birds do not migrate, except on the approach of a severe winter. How are these birds led to migrate at such seasons? The general and easy answer is, by instinct. But what is instinct? Certainly we cannot mean, by this term, a constant direct interposition of Providence, which drives the birds away because a severe winter is coming on. Instinct, whatever it may be, must be guided by general laws. In what way, however, the birds are led to guard against the severity of the approaching season, whether by a peculiar sensibility to the causes from which its severity will proceed, or in other ways, we know not. In the article *Instinct*, it has been maintained, that much of the conduct of animals necessarily implies reflection. The vicissitudes of the atmosphere, on the arrival of the migrating time, have also a great influence upon them. Most birds perform their migration during the night; some species, however, by day. Others stop not, either by day or night. To the class which fly by day belong the birds of prey which obtain their food by day—the crow, pie, titmouse, wren, woodpecker, chaffinch, goldfinch, lark, swallow, and some others. Those which travel by night are the owl, blackbird, &c., and a great number of aquatic birds. Those which stop not, day or night are, the heron, wagtail, yellow-hammer, plover, stork, crane, wild goose, swan. It is very remarkable, that individuals of those species which travel day and night, and which, by some cause, are prevented from migrating, remain, during all the time of the migration of their species, awake, and only occupy themselves with taking food. These birds like particularly to travel in bright moon-light. Many birds obtain their food on the wing. The swallows, traversing the sea, catch insects, and fishing birds catch fish, whilst they continue their journey. If the titmouse, wren, woodpecker and pie rest, for some time, on the branches of trees, they soon resume their flight, after having fed. Those birds which habitually alight on spots where they find nourishment in abundance, never remain longer than two days in succession, if nothing opposes the continuance of their flight. It is a curious fact, that, at these times, many birds utter cries such as they are never heard to make at any other time. Unless obliged by fogs to keep near the ground, birds generally fly very high during their migration. Of all migrating birds the cranes are, perhaps, the most remarkable. They seem to be most endowed with foresight. They call each other by certain cries, several days before they depart, assemble, and make a great noise, as if consulting, after which they range themselves in two lines, forming an angle, at the vertex of which is the leader, who appears to exercise authority and give orders, for instance, to form a circle in a tempest, or to be watchful if eagles approach, &c.; he also gives the sign to descend and take food. If he is tired, he places himself at the end of the line, and the bird next behind him takes his place. They utter, during the night, more piercing cries than during the day, and it seems as if orders and answers were given. Wild geese and ducks travel in a similar way. To enable birds to fly with ease, and to continue long on the wing, they must fly against the wind, in which respect flying is directly opposite to sailing. Sportsmen are well acquainted with this fact. If the wind is unfavorable for a time, the migration is retarded, yet never entirely given up, only the birds arrive much leaner, fatigued by their efforts. It is astonishing how tender birds, as the linget, for instance, set out from the extremity of Norway, and brave a long journey even over the ocean. The quails, who are heavy in their flight, wait on the shores of the Mediterranean, often a long time, for a favorable wind, of which they immediately avail themselves, halting on all the islands. If the wind suddenly changes, many are drowned in the sea. Certain birds, as the moor-hen, rail, &c., being unable to fly for any considerable distance, travel partly on foot. Some even (as the great auk, or penguin, diver and guillemot) migrate by water. Ornithologists have observed that, on the old continent, birds migrate in autumn to the south-west, and in spring toward the north-east; yet the courses of rivers and chains of mountains exercise considerable influence on the direction of their flight. On the new continent, the points of direction are not the same. Captain Parry has satisfied himself that the birds of Greenland go to the south-east. It is remarkable, also, that the young of certain species do not make the same journey as the old birds; they go more to the south, so that it is very common to find, in the south of Europe, only the young birds of a certain species, whilst the older ones remain more to the north. In other species, the females go farther south. It was formerly believed that the birds of the tropical regions never migrate, and that they never pass the line; but Humboldt has shown that this is not the case. He observed, moreover, that the migration there took place with the periodical rise of rivers.

Miguel, Maria Evarist, king of Portugal, the fifth child and second son of John VI, king of Portugal and emperor of Brazil (died 1826), and of Charlotte Joachime (died 1830), Infanta of Spain, daughter of Charles IV, was born Oct. 26, 1802. Doubts are said to have been entertained by his father of the legitimacy of his birth;* but he was the favorite of his mother, and brought up under her eye. Imbued with all her political and religious prejudices, the young prince was a zealous opponent of the constitutional principles, which predominated in Portugal, after his return from Brazil (1821), whither the royal family had fled in 1807. (See *Brazil*, and *Portugal*.) He, therefore, engaged in a plot for a counter-revolution, and, in April, 1824, publicly declared against the constitutional system. Several thousand of the troops had already joined him, and the royal person was in the hands of the conspirators, when the French ambassador, Hyde de Neuville, having obtained access to the king at the head of the diplomatic corps, and received assurances that every thing had been done without his privity, the designs of the conspirators were frustrated. Don Miguel threw himself at the feet of his father, who, for greater security, had taken refuge on board of an English ship lying in the Tagus, and now banished the prince and his mother from the kingdom. The former embarked for Nantes, whence he went through Strasburg, Carlsruhe, Stuttgard and Munich, to Vienna, where he resided several years. On the death of his father, Isabella Maria, his sister, was declared regent of the kingdom, in the absence of the rightful heir, dom Pedro, emperor of Brazil. (See *Pedro*.) The emperor disposed of the crown of Portugal (July 3, 1827), which, by the Brazilian constitution, he was incapable of wearing while on the imperial throne, in favor of his daughter dona Maria da Gloria (born April 4, 1819), giving, at the same time, a constitution to the kingdom, and providing for the marriage of dom Miguel with the young queen, on condition of his maintaining the new constitution. Miguel returned from Vienna through Paris and London, and arrived in Lisbon Feb. 26, 1828. He immediately assumed the administration of the government, and took the oath to the constitution. But it was soon evident that his views remained unchanged; he had learned nothing and forgotten nothing during his exile. The oath was in his eyes a mere ceremony; absolutism again became the order of the day; the ministry was changed to make room for instruments of his arbitrary designs; the chamber of deputies was dissolved by a decree of March 13; the law of election changed by another of the 17th; and the influence of the queen-mother was very visible. On the birth-day of the prince, April 24, disturbances took place at Lisbon, and the senate of the city petitioned Miguel to declare himself absolute king. Petitions to this effect were got up, and Miguel, apparently yielding to the instances of his subjects, issued a decree (May 3), convoking the cortes of Lamego, the ancient three estates of the kingdom, by whom he was declared king of Portugal and Algarves. Some opposition was made by the constitutionalists in different parts of the kingdom, but their efforts were unsuccessful, and they were treated with the greatest cruelty. Meanwhile dona Maria had sailed from Brazil; but, on arriving at Gibraltar, it was determined that she should not proceed to Lisbon under the existing circumstances. She was accordingly carried to London, whence she returned to Brazil, in August, 1829, but again arrived in Europe, with her father, in the summer of 1831. Dom Miguel continued to pursue his career of usurpation and despotism, while persecution, confiscation or death was the lot of the patriots. In November, 1828, he was severely wounded by the oversetting of the carriage in which he was riding out with his sisters, but recovered after a long confinement. In March, 1829, his troops took possession of the Azores, with the exception of Terceira, which was bravely defended by the garrison. In private life Miguel has shown himself an unfeeling tyrant; his elder sister, Isabella Maria, was thrown into prison, and he has even been accused of an attempt to poison both of his sisters, who, it is certain, were dangerously sick in the autumn of 1829. His barber, a favorite, whom he had created baron of Quelluz, suddenly disappeared about the same time. (For his recent history, we refer to the articles *Pedro*, and *Portugal*.) The whole kingdom has been made a scene of terror, distrust and desolation. Its prisons are crowded with persons whose only crime is an attachment to constitutional principles. In 1830, the number of persons confined for what are called political crimes, was 24,000, besides which nearly 20,000 Portuguese were concealed in the mountains of their native country or wandering in foreign countries. His outrages on French residents have lately led to a demand of satisfaction on the part of the French government. A French fleet forced its way to Lisbon, and satisfaction has been given. A fleet of U. States' ships has also sailed for Lisbon, to obtain satisfaction for injuries to American commerce.

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* Rumor named the French ambassador at the court of Lisbon as the father of the prince.

Milan, Duchy of, or the Milanese; formerly a duchy in the north of Italy; one of the finest and most fruitful countries in Europe; bounded on the west by Piedmont and Montferrat, south by the Genoese territory, east by the territories of Parma, Mantua and Venice, and north by Switzerland. Its extent was 3820 square miles; principal productions corn, rice, wine, fruits and silk. The first duke of Milan was Gian Galeazzo Visconti, who was named to that dignity by the emperor Wenceslaus, in 1395. The duchy was composed of a number of the most flourishing cities of Lombardy, in which the Visconti acquired the sovereignty, partly by means of fiefs, and partly through the favor of the citizens and the emperor. The male line of the Visconti became extinct in 1447, and, although the rightful claim then fell to France, Francesco Sforza, the husband of a natural daughter of the last duke, obtained possession of Milan for himself and his family, and they held it until the end of the fifteenth century. Louis XII and his successor, Francis I, then attempting to enforce their claims, the duchy was alternately in the hands of the French and the Sforzas. Francis I, by the peace of Madrid (1526), was obliged to give up all his Italian possessions; and, the male line of the Sforzas having become extinct in 1535, Charles V granted the duchy to his son, Philip II of Spain; and it continued to be an appendage to the Spanish crown till the war of the Spanish succession, in 1706, when it came into the possession of Austria. By the peace of Vienna (1735) and the convention of Worms (1745), portions of it were ceded to the king of Sardinia, In 1796, the French occupied the country, and by the peace of Campo-Formio (1797), it was annexed to the Cisalpine republic. Although the Austrians and Russians annihilated this republic in 1799, yet Bonaparte again became master of Italy by the battle of Marengo, changed the name into Italian republic (1801), and into that of kingdom of Italy (1805), of which the duchy of Milan constituted an important part until the events of 1814. Austria then united Milan and Mantua with the Lombardo-Venetian kingdom, the western part of which, the government of Milan, contains 2,194,000 inhabitants, and 8437 square miles. Sardinia also recovered its former portion of the Milanese territory (3095 square miles), by the treaty of Paris, in 1814. (See *Austria*, *Italy*, *Lombardy*, and *Sardinia.*)

Milan (*Milano*, in German *Mailand*, anciently *Mediolanum*); capital of the Lombardo-Venetian kingdom, situated in a fertile and pleasant plain, on the left bank of the Olona, 140 leagues from Vienna, 110 from Rome, 160 from Paris; lat. 45° 28′ N.; lon. 9° 11′ E.; population, 129,000. It is one of the richest, most splendid and populous cities in Italy; and, in spite of time and wars, has preserved a great part of its magnificence. Of the antiquities the only remains are the ruins of the Thermæ, which are usually called the *colonne di S. Lorenzo*. Milan is rich in architectural monuments of modern times, among which the celebrated cathedral is the most remarkable: the foundation was laid in 1386, and, after St. Peter's, it is the largest church in Italy. It is built entirely of white marble, and its interior and exterior produce an indescribable effect. The oldest architects, who worked upon it, adopted the later Gothic style; but in the middle of the sixteenth century, Pellegrino Tibaldi erected the front in a more ancient style, and thus destroyed the unity of the whole. Napoleon almost completed it at an immense expense. The emperor Francis appropriated 12,000 *lire* monthly, to finish it. While the exterior dazzles and astonishes the beholder by the pure brilliancy of the marble, the Gothic ornaments and the statues (of which there are 4000), he is not less strongly affected by the interior, which rests upon 52 marble columns. It is described by Franchetti in *Descrizione storica del Duomo di Milano*, with engravings. Rupp and Bramati also published a description in 1823, under the title *Descrizione storico-critica del Duomo di Milano*. One of the oldest churches in Milan, that of St. Ambrose, into which you descend by several steps, is remarkable for a number of antiquities, but is dark, and without beauty. Of the numerous other churches, many are splendid. The former Dominican convent, *Madonna delle Grazie*, contains, in its refectory, the celebrated fresco of Leonardo da Vinci, the Last Supper, now much injured, but yet beautiful. The former Jesu it's college of Brera, a magnificent building, remarkable also for its observatory, still contains several establishments for the arts and sciences; among them a picture gallery and a library. The former is particularly rich in works of the masters of the Lombard and Bolognese schools; the latter is valuable. The Ambrosian library, founded by the cardinal Borromeo (who was bishop of Milan in 1595, and died in 1631) contains, besides the books, a treasure of valuable manuscripts (among them, those of Leonardo da Vinci), paintings, sketches (Raphael's cartoons of the school of Athens), antiques, and casts in plaster. The abbate Angelo Maio (q. v.), who was appointed librarian in 1819, has made some important discoveries among these manuscripts. (See *Library.*) The military geographical institute of Milan, founded in 1801, has published an atlas of the Adriatic sea and other charts. Among the charitable institutions, the great hospital is the most remarkable, on account of its architecture, magnitude, and the care paid to the patients (4000). The Lazaretto, a large quadrangular building, formerly used during the prevalence of the plague, has now a different destination. The theatre *della Scala* of Milan, is one of the largest in Italy, and, perhaps, in Europe. It was built by Piermarini, in 1778, and is superior to all others in its accommodations. The operas and ballets are here exhibited in a style not surpassed for brilliancy and completeness in Italy. Besides this, there are the theatres *Re*, *Canobiana*, *Carcano*, &c. Milan contains a great number of palaces, and other handsome buildings, but the streets are not in general broad or straight. The *Corso* (the *Porta Orientale*), with which the public gardens form a beautiful promenade, is particularly fine. The gardens are not so much frequented as the Corso, in which the fashionable world parades afoot and on horseback, but principally in rich equipages, every evening. The principal articles of commerce are corn, rice, silk and cheese. The number of manufactories is considerable. The arts and sciences are held in high esteem, and the Milanese school of engraving is favorably known. The environs of the city are fertile; two large canals are connected with the Ticino and the Adda, and the Alps of Switzerland are visible.

Milesian Tales. (See *Romance.*)

Mildew. (See *Fungi.*)

Mile. (See *Measures.*)

Miletus; a city of Asia Minor, on the Meander, the Ionian Athens (see *Ionia*), and, next to Ephesus and Smyrna, the most celebrated and important commercial city of Ionia. It early acquired wealth and power, founded a great number of colonies, and carried on long and expensive wars with the Lydian kings. After the conquest of Lydia by Cyrus, Miletus, with the rest of Ionia, was also reduced to the Persian dominion. The city was treated with clemency, and continued to enjoy its former prosperity, although often shaken by internal dissensions, until the Ionian war, when it was razed to the ground (B. C. 494). The inhabitants rebuilt the town, but it never recovered its ancient importance. Miletus was the birth-place of Thales, of Anaximander, Æschines, and the celebrated Aspasia. The Milesian woollen manufactures were famous in ancient times.

Milford Haven; a deep inlet of the sea, in Wales, county of Pembroke. Several plans have been proposed, at different times, for improving its accommodations. These plans have given rise to the new town of Milford, or

Milford Haven; a town which was founded in 1790, on the northern shore, and has risen with great rapidity. The houses are built with neatness, and even elegance. It has a church with a lofty tower, a custom-house, a plain but commodious building, and a dock-yard, which forms a principal feature in the plan. A line of packets has been formed here, under excellent regulations, for conveying the mail and passengers to Waterford, in Ireland. An establishment has been also formed for the southern whale-fishery. There is also an extensive establishment of quarantine. Six miles west by north of Pembroke.

Miliary Fever; a name given to fevers of every description, when accompanied by an eruption of miliary vesicles, so called from resembling millet seed.

Military Colonies of Russia. The Russian military colonies differ much from those of Alexander of Macedon and of the ancient Romans, and also from the Military Frontiers of the Austrian empire, and the distributed troops of Sweden. Russia has endeavored, by the settlement of entire regiments in particular districts, under a peculiar military, civil and police government, to unite the character of crown peasants and paid soldiers, whereby agriculture, population and civilization may be advanced, and the standing army of the empire increased without burdening the revenue. Count Araktschejeff, who rose by merit from a low rank in the army to that of general of artillery, is the author of this system, and for a time directed its execution. When the emperor Alexander, at the termination of the wars with Napoleon, desired plans for diminishing the great expense of a standing army, Araktschejeff advised him to quarter the soldiers among the crown peasants, to build military villages on a given plan, to allow to each house a certain number of acres of land, and to devise a code of laws for the government of this institution. The soldier was thus to become a peasant of the crown, and the crown peasant a soldier, and both were to be made to contribute to their own support by the cultivation of the soil, and the whole male population of the colonies was to be drilled in the military exercises, and be kept as a reserve for field-duty. On account of the vast extent of the empire, the recruits hitherto levied had often been totally separated from their homes; they joined their regiments, and, after 25 years of service on the frontiers of Turkey, Persia, Poland, Norway and China, forgot that they had families and a country. It was therefore considered desirable that the whole military force of the Russians along the boundaries of Poland, Turkey, and the vicinity of Caucasus, should be collected into military colonies, by which not only the population and cultivation of the country should be promoted, and the families of the soldiers in actual service be provided for, but also the soldiers themselves in times of peace, and in the midst of their wives and children, and around their own firesides, should acquire an attachment to their country. Such colonies were first established in the government of Novogorod; the soldiers were placed in certain villages, which were the property of the crown; the peasants were gradually brought under military government, obliged to wear their hair short, and to shave their beards, and were also drilled in military exercises, so that, in case of the death, absence on service, or sickness of the quartered soldier, the peasant could immediately take his place. Some disorders, the consequence of this project, were soon suppressed, and the whole system graduelly developed. According to this system, the name, age, property and family of each inhabitant of the selected villages are specified; the older peasants are declared the chief colonists, and houses built for them, in regular rows constituting streets. Each chief colonist is equipped in uniform, trained to military exercises, and receives a house with 15 *desatines* of land, on condition of maintaining one soldier (and his horse, if cavalry is colonized). The soldier quartered on him is called the *agricultural soldier*, and assists him in the tillage of the fields and in domestic labors. He also selects one of his family as an assistant, commonly the eldest son, who, after the death of his father, with the approbation of the colonel of the regiment, inherits his real estate. The second son, or some other relation, comes into the "reserve," and also dwells in the house; the third is also made an agricultural soldier; the others are cantonists, &c. A family is divided into three classes. The boys, until they are eight years of age, are allowed to remain with their parents; they are then sent to the military schools, where they are habituated to strict discipline: at the age of 13 years, they become cantonists, and at the same time are educated as peasants and soldiers, and at 17 years, they form a part of the military colony, which is governed by a peculiar code. Each colony has its own court of justice, at which the highest officer presides, and the rest follow according to rank. No girl is permitted to marry any one but a soldier. No person is allowed to enter the military district without a special pass from the military authority. The duties connected with the post-houses are also committed to the care of the soldiers. After 20 or 25 years' service, the agricultural soldier may renounce his double duty as a soldier and a farmer, or declare himself an invalid. His place is then filled by one of the reserve. Thus had Russia, in 1824, already established a kind of military caste, and, as it were, a military zone, which extends from the Baltic to the Black sea, along the western frontier of the empire, in the governments of Novogorod, Cherson, Charkow and Ekaterinoslaw, and constitutes the proper country of her standing army. In this belt of land, all the male children are born soldiers; in their 17th year, they are placed under the standards, constantly drilled in military exercises, and remain soldiers till they are 60 years of age. As soldiers, they cease to be boors. They are divided into regiments, companies, &c., for whose support a part of the crown-lands is set apart. From the produce of the lands granted them, the soldiers of the colony must support themselves and their horses, while not in active service; then they receive pay. It is calculated, that the number of these agricultural soldiers, when the system is fully carried into execution, will amount to 3,000,000, half of whom can be drafted for service. The colonies already established, in 1824, con tained about 400,000 male inhabitants, including 40,000 cavalry. In July of the same year, the emperor visited in person many of the colonies, and publicly expressed his satisfaction with their condition. As this system is extended, the conscription and recruiting hitherto practised must gradually fall into disuse. The empire, on its only assailable side, is thus in a continual state of defence; this living rampart also compensates for the want of fortresses, of which there are none of much importance in Russia. General count Araktschejeff was, till the death of Alexander, the commander-in-chief of all the military colonies of the empire. In January, 1824, all the military cantonists of the military orphan schools (in which reading, writing and arithmetic are taught on the Lancastrian plan, and the soldiers' catechism explained), were made subordinate to the commander-in-chief of the military colonies. Of the cantonists, a considerable number yearly enter the military service, in the place of those of the reserves, who have been drafted to supply the numbers of the agricultural soldiers. The boys then succeed to the places vacated by these cantonists, and so on. A military education is the peculiar support of this system, which subjects the peasant to a military police. For the education and support of the boys and cantonists, the revenue obtained from the release of recruits is applied. By the ukase of Dec. 29, 1823, the possessors of landed property in the thinly settled governments were released from the duty of levying recruits, by the payment of a certain sum of money; 3500 of these releases, at 2000 roubles paper money each, were issued, which produce an income to the state of 7,000,000 of roubles. The expenditures for the military colonies amounted, according to the report of the commander-in-chief, in the year 1822, to 4,962,475 roubles, and the total expenditure since their organization, to 1824, amounted in all to 15,780,115 roubles. Of the 6,000,000 of crown peasants, 4,000,000 are sufficient to furnish quarters to the whole army. Thus Russia, together with her present army of 8—900,000 men (according to the rolls, though not in actual service), would have one equally strong in her colonists, which can be recruited from the cantonists and the body of reserve, without interruption, and in the best manner. A very despotic authority will, however, be requisite to preserve a body of 2,000,000 of soldiers, who have houses and families, under military discipline and restrictions. This system, since the death of the emperor Alexander, has been extended no farther, but, as far as it was already in existence, has been retained, and was for a time under the direction of general Diebitsch. Mr. Lyall, an Englishman, in 1822, visited the Russian military colonies, and gave an account of them in his Travels through Russia (London, 1824).

MILITARY DISTRICT, OR MILITARY FRONTIER (in German, *Militairgrenze*); a district of the Austrian monarchy, containing 18,230 square miles, with 99,000 inhabitants; which stretches 920 miles along the Hungarian and Transylvanian frontiers, as far as they border on the Turkish territory. It has a military constitution, and the inhabitants are soldiers and peasants at the same time. They have received the hereditary use of the land, for which they are obliged to render certain services to the government, amongst which the military service is the most important. They form thus an uninterrupted cordon against the Turks, and the Austrian government has an army always ready without great expense. The soldiers actually in service belonging to this district amount, in peace, to 45,000 men. In 1815, they amounted to 62,000 men. These frontier soldiers protect their country against the Turks and the plague, without pay. When they are marched against enemies in a different quarter, they have the common pay of other soldiers. In the 30 years' war, in the Austrian war of succession, and in the seven years' war, their services were important; and still more so in the repeated contests between Austria and Turkey. At the beginning of the French revolutionary war, no less than 100,000 of them appeared in the field. They have shown themselves undeviatingly faithful to their monarch. Their military officers exercise also the civil and judicial authority. The highest office is called the *general-commando*, under whom stand the *commandos* of the regiments. The whole country is divided into five generalships (*generalate*), which, in 1815, contained three fortresses, eleven cities (or, as they are called, *military communities*, which have their own magistrates), 24 market towns and staff quarters, and 1995 villages. In the generalship of Carlstadt and Warasdin, the most important places are Karlobago, Zengh and Bellowar; in the generalship of Banat, Petrinia and Kostainicza; in the Sclavonic generalship, or that of Peterwardein, Old and New Gradisca, Peterwardein, Carlowitz and Semlin; to which also belong the Tschaikists; in the Hungarian Banat generalship, Pancsowa, Weisskirchen and Karansebeo. In the Transylvanian generalship there are no places particularly worthy of notice. Next to agriculture and the raising of cattle, the cultivation of wine and garden fruits is carried on extensively. Flax, hemp, tobacco, and many other important plants, are cultivated. The country is rich in valuable minerals. Mining, particularly in the present Banat and the Transylvanian frontiers, was in a flourishing condition even in the time of the Romans; but these mines are, at present, little worked. Manufactures are in a low condition. The mechanics, as well as the merchants, live chiefly in the *communities*, so called. The inhabitants belong principally to four races. The most numerous are the Sclavonians; after these, the Walachians; then follow the Hungarians and Szekler; after these, the Germans. The majority belong to the Greek church; the Roman Catholics, however, are almost equally numerous. There are also Greek Catholics, Calvinists, Lutherans, and Unitarians. In the time of the Romans, this country belonged partly to Illyria and Pannonia Savia, partly to the kingdom of Dacia, and shared the changes of those countries. Sigismund of Hungary laid the foundation of the military frontier when he founded the *capitanat* of Zengh. In the middle of the sixteenth century, the frontier seems to have been already divided into two chief districts. The Croatian frontier was the first; the others were established much later, when, by the peace of Carlowitz, Austria received from Turkey several provinces entirely unpeopled. In no part of Hungary does the population increase so rapidly; and yet the frontier has to furnish many troops in all the wars of Austria, and many young people, unable to obtain land for the support of a family, emigrate into other parts of the monarchy. The Transylvanian frontier was established the latest. (See *Statistik der Militairgrenze des östreich. Kaiserthums*, by Hietzinger, Vienna, 1822.)

Military Geography. (See *Military Sciences*, and *Geography*.)

Military Orders. (See *Orders*.)

Military Roads are, 1. such roads as are destined chiefly to facilitate the movements of military bodies; for instance, some of the superb roads which Napoleon constructed in Italy, to effect an easy military connexion with France; 2. roads on which, according to treaty, foreign troops may march to a certain place of destination, in traversing the states of a friendly power.

Military Schools and Academies; schools in which soldiers receive instruction, or in which youths are educated for the army. Among the former are the *soldier-schools*, in which, as is the case in many armies, particularly in the Prussian, the private soldiers learn reading, writing and arithmetic; they are also, in the last named country at least, often instructed in singing, so that it is common, in the Prussian army, for a battalion to have its choir, which sings during divine service, and on other occasions. Instruction has become so general in the Prussian army, by means of regimental and battalion schools, that during the last years of peace, the army was considered an institution for the instruction of the whole country, as every Prussian is obliged to serve for a short time in the standing army. In some armies *conversazioni* have been introduced, in which the officers hold discourse with the sergeants and privates, on subjects connected with the service. When the officers in the armies of the European continent were taken from the nobility only, academies were established by government to educate young noblemen. They were called in Germany *Ritterakademien*, and sometimes were of a high character. These establishments must be distinguished from the *cadet-houses*, so called, where, generally speaking, the children of officers only are educated for the army. In many countries, noblemen only are admitted into these also. In several French cities, companies of *cadets* existed when Louis XV, in 1751, first established an *école royale militaire* for 500 young noblemen, from eight to eleven years old. The principal features of its organization have been retained in most similar institutions. —See *Recueil d'Édits, Déclarations, Reglemens et Ordonnances du Roi, concernant l'Hôtel de l'École roy. militaire* (Paris, 1762). The (so called) *Ritterakademien* originated later. Frederic the Great established the *école militaire* at Berlin, for the further accomplishment of young officers. Even before the seven years' war, every French city in which a regiment of artillery was garrisoned, had its artillery school. Saxony followed in 1766, Austria and Prussia later. At present, the two last have excellent artillery schools, as well as others in the department of engineering. Since 1815, the standard of scientific education of officers has been much raised in several armies; in none, however, so high as in the Prussian, in which no person can be promoted without a severe examination. Besides the regimental schools in this army, mentioned above, every division has its school, to which young sergeants, &c., are admitted (if they appear, on examination, to possess the necessary elementary knowledge), in order to prepare themselves for examination for a lieutenancy. Mathematics, history, geography, statistics, the applied mathematics, modern languages, particularly French, and the military sciences (q. v.), are here the chief subjects of study. The artillery corps and engineer corps have their separate schools for young officers, to prepare themselves for examination for the rank of captain. The captain must continue his studies by himself, to stand an examination for the rank of major. Of the troops of the line, every regiment is allowed to send a few of its young officers, who must have shown great diligence, talent, and considerable acquirements, to the general military school in Berlin—an institution of a very high character. Here the highest branches of mathematics, geology and mineralogy, chemistry and natural philosophy, history, politics, the military sciences, languages, &c., are taught in a course which occupies three years. The officers also attend such lectures in the university as they choose. It is evident how much such establishments must raise the standard of learning in the whole army, and, indeed, the corps of officers contains some of the most accomplished men in Prussia. In France, the former cadet houses have been called, since the revolution, *military schools*. (For the military academy at West Point, see *West Point*.)

Military Sciences have, by some of the latest writers, been divided into the following heads:—1. *Tactics*, i. e. the science of the drilling of an army, as well as of disposing and directing it in battle, requiring, of course, an acquaintance with the different kinds of arms. The artillerist devotes himself particularly to the ordnance, and the various branches of science requisite for its proper management. The lower, or elementary tactics, treats of the drilling and formation of soldiers, and accustoming them to the movements of small and large divisions, and varies in character with the different regulations of different armies. Tactics proper treats of the mode of disposing troops in the actual combat, and of the peculiar use of each species of force, cavalry, infantry, both heavy and light, and artillery. With them is nearly connected the choice of camps, or castrametation (q. v.), though, since the introduction of the system of requisition, this branch of military science has gone almost entirely out of use. The knowledge of the employment of pontons seems also to fall within this department. 2. *Strategy*, the science of forming the plans of operation, and of directing armies accordingly. It has been but lately treated as an independent branch, since von Bulow wrote on the subject. Many military writers will not as yet admit such a division; but little doubt can exist that it will be universally adopted. (See, among other works, *Principles of Strategy, elucidated by the Description of the Campaign of* 1796, *in Germany*, by the archduke Charles, q. v.) 3. The branch which treats of the just understanding and proper use of the surface of the earth for military purposes. The tactics of our time can overcome a number of obstacles, arising from the character of the ground, which were formerly considered insurmountable; still, however, this department of military science, embracing, as it does, a knowledge of the usual character of the ground under given circumstances, the course of rivers, of mountains, valleys, geological formations, &c., remains indispensable for a useful officer. To this branch belongs, or, at least, with it is intimately connected, reconnoitring, surveying, drawing of topographical maps, &c. 4. *Military Architecture*, or *Fortification*, which teaches how to fortify any given point by artificial means, so that a few persons may be able to defend themselves against the attacks of many. It embraces the construction of proper fortresses (*fortification permanente* or *royale*), the attack and defence of fortified places, and the knowledge of field fortification (*fortification passagère*), which treats of the construction, attack and defence of redoubts in the field, raised for transitory purposes, and not so solid as in standing fortifications. 5. *Military History* and *Biography*, which embraces a knowledge of all important wars, and also of the various organizations of armies, the principles upon which war has been carried on, the different arms used, and the consequences attending their use, &c.; also the lives of the greatest generals, and the resources which they found in situations where many leaders would have despaired. The history of military literature, to a certain extent, is indispensable for a young officer, that he may be directed to the best works of the different nations.

Of the auxiliary sciences, the most important is mathematics, which is indispensable for a scientific soldier; military geography, embracing a knowledge of roads, rivers, valleys, &c., the law of nations, modern languages, and gymnastics. The branches of study now enumerated are more or less essential to the well educated soldier; but they cannot make a general, any more than the study of the thorough base can make a Mozart, or the knowledge of perspective, anatomy and colors, a Raphael. Although it would be a useless waste of time to set about proving that scientific study is essential to a commander, yet the greatest general must find the most important resources in his own genius; and this must act with unfailing promptness. An artist, if unsuccessful, may renew his efforts; but in war, the fate of a battle may depend upon an instant decision, and a failure is ruin.

Militia (from the Latin *militia*); in the modern adaptation of the word, a body of armed citizens regularly trained, though not in constant service in time of peace, and thereby contradistinguished to *standing armies*. It includes all classes of the citizens, with certain exceptions, who are drilled at particular periods in peace, and liable, according to certain laws, to march, in cases of emergency, against the enemy, in some countries, however, not beyond the frontiers. The regular organization of the militia distinguishes it from the *levée-en-masse*. (q. v.) The militia exists in different countries under different names; thus, in France, the *national guards* are what, in the U. States, are called *militia* (see *Guards, National*); in some countries, they are denominated *burgher-guards;* in Austria and Prussia, *Landwehr* (defence of the country), while the *levée-en-masse* is called, in these two countries, *Landsturm.* In the articles *Army*, and *Army, Standing*, is given a brief sketch of the different organization of armies from the feudal militia to the standing armies of the last century, and from them again to the citizen soldiers of later times. The reader will also find there the titles of several works which afford interesting information on this subject. In the article *Feudal System*, the origin of the armies in the middle ages was briefly touched on. When the feudal system had rendered almost every nobleman on the European continent an independent monarch in miniature, he kept his own warriors in his castle or territory, and the difficulty of assembling a large general army, even for a good purpose, was immense. In the cities (q. v.) where a more republican spirit prevailed, all the citizens were obliged, at least, to take part in the defence of their city,—a duty which they were not seldom called upon to perform. The introduction of standing armies, chiefly in consequence of the endeavor of monarchs to render their governments more and more independent upon the nation at large, caused the citizens to take less and less share in the military service, and, in many cases, excluded them from it entirely; yet, while, in some countries, the services of the citizen soldiers were becoming every day of less importance, so that burgher-militia even became a term of contempt in many places, other governments began to foster the national militia. The Swedish army was, at an early period, a kind of general militia. The army consisted of twenty-one regiments, of which each owner of landed property was bound to maintain one man. They assembled every year for three weeks, and, during this time as well as in war, received full pay (as is now the case in Prussia). The Danish army was formed on a somewhat similar plan, about a third of each regiment consisting of enlisted foreigners, while two thirds were Danish subjects, who, like those in Sweden, were supported by the owners of landed property, but, in return, were obliged to assist the latter in the cultivation of their estates. In Germany, similar plans were adopted. The privates and non-commissioned officers of the militia followed their agricultural or mechanical pursuits, and were generally under the command of officers out of active service. They were only obliged to serve within the country. Frederic the Great used them to garrison the fortresses: the same was the case with the Austrian militia during the war of succession. The bad organization and unmilitary spirit of these troops rendered them the butt of the troops of the line. In some cases, it was even considered allowable, by the laws of war, not to give them any quarter, when they were employed out of the limits of their country, and were taken prisoners. They became extinct almost every where on the European continent. Similar, but better organized, was the English militia. The origin of this national force is generally traced back to Alfred. The feudal military tenures succeeded, and, although the personal service which this system required degenerated by degrees into pecuniary commutations, or aids, the defence of the kingdom was provided for by laws requiring the general arming of the citizens. Under Edward III, it was provided that no man should be compelled to go out of the kingdom at any rate, nor out of his shire, but in cases of urgent necessity, nor should provide soldiers, unless by consent of parliament. We first find lord-lieutenants of counties, whose duty was to keep the counties in military order, mentioned as known officers in the fifth year of Philip and Mary. When Charles I had, during his northern expeditions, issued commissions of lieutenancy, and exerted certain military powers, which, having been long exercised, were thought, by one party, to belong to the crown, it became a question, in the long parliament, how far the power over the militia did inherently reside in the king, which, after long agitation, ended by the two houses denying the crown this prerogative, and taking into their own hands the entire power of the militia. After the restoration, when the military tenures were abolished, the sole right of the crown to govern and command the militia was recognised. The most characteristic features of the English and Scottish militia at present are, that a number of persons in each county is drawn by lot, for five years (liable to be prolonged by the circumstance of the militia being called out and embodied), and officered by the lord-lieutenants and other principal land-owners, under a commission of the crown. They are not compellable to leave their county, unless in case of invasion or actual rebellion within the realm, nor, in any case, to march out of the kingdom. When drawn out, they are subject to military law. In all cases of actual invasion, or imminent danger thereof, and in all cases of rebellion or insurrection, the king may embody the militia, and direct them to be led into any part of the kingdom, having communicated the occasion to parliament, if sitting, or, if not sitting, having declared it in council, and notified it by proclamation. In Tyrol, a general arming against the French was effected in 1799. When, in 1808, the arch-duke Charles was placed at the head of military affairs, a general *Landwehr* was organized throughout the Austrian provinces. In 1809, these troops fought well, and amounted, at that time, to 300,000 men; after 1811, only to 71,500; but, after 1813, the *Landwehr* was again placed on its old footing, and, quite lately, parts of it have been called out to increase the army, which stands ready to overrun Italy. In Hungary, the common law obliges every nobleman to serve himself and to bring his vassals into the field, if called upon. This *levée* is called an "insurrection of the nobility." In 1809, this insurrection consisted of 17,000 horse and 21,000 foot. In 1807, a general militia was organized in Russia, which, in 1812, was of considerable service against the French. Prussia has carried the *Landwehr* to greater perfection than any other country: in that country, the militia forms the main body of the army. In 1813, every male person under forty-eight years of age was obliged to serve against the French in the militia. The national militia, at that time, included both infantry and cavalry. The lower commissioned officers were elected by the militia-men, and the higher by the estates of each circle. When Napoleon returned from Elba, Prussia had 150,000 infantry and 20,000 cavalry of the militia under arms. After the peace of 1815, the *Landwehr* was established on its present footing. Every Prussian, with the single exception of mediatized princes, is obliged to serve for three years in the standing army, between his seventeenth and twenty-third year. Part of this time, however, he is generally on furlough. If a person equips himself and undergoes an examination, by which he proves that he has received a certain education, he has to serve one year only in the standing army. After this time, every Prussian belongs, until his thirtieth year, to the first class of the *Landwehr*, attends frequent drills on Sunday afternoons, and has to serve for three weeks every year, when the *Landwehr* is called together for great manœuvres. Every man is in the *Landwehr* what he was in the standing army—foot-soldier, horseman or artillerist. Government hires horses for the time of manœuvring, and, as they are well fed and ridden by experienced men, the owners generally like to let out their horses for the occasion. Every Prussian, from his thirtieth year until his fortieth, belongs to the second class of militia. This is not called together in time of peace, and, in war, only in time of the greatest emergency, and then only for local or provincial service. Thus Prussia is enabled to assemble a very large army in proportion to its population, whether to the injury of the nation is a question not to be discussed here. In regard to the militia of the U. States, it is provided, by act of congress of 1792, that all able-bodied, white male citizens, between the ages of eighteen and forty-five, with certain exceptions (officers of government, members of congress, mariners in service, &c. &c.) shall be enrolled in the militia. The persons so enrolled are to provide themselves with the common arms of infantry, and with ball cartridges, &c., at their own expense. These are arranged into brigades, regiments, companies, &c., as the legislatures of the several states may direct. Each battalion is to have at least one company of grenadiers, light-infantry or riflemen, and each division at least one company of artillery and one troop of horse. Proper ordnance and field artillery is to be provided by the government of the U. States. The cavalry and artillery troops are to consist of volunteers from the militia at large, not exceeding one company to each regiment, and are to equip themselves, with the exception of the ordnance above mentioned. Whenever the U. States shall be invaded, or in imminent danger of invasion from any foreign nation or Indian tribe, the president is authorized to call forth such number of the militia of the state or states most convenient to the scene of action as he may judge necessary. In case of any insurrection in any state against the state government, he may, on application from the legislature of such state (or from the executive, when the legislature cannot be convened) call forth such number of the militia of any other state or states as may be applied for, or as he may judge necessary to suppress the insurrection. So, whenever the laws of the U. States are opposed in any state by combinations too powerful to be suppressed by the ordinary course of judicial proceedings, or by the powers vested in the marshals, the president may call forth the militia of such state, or any other state, to suppress them, and may continue the militia in service for thirty days after the commencement of the next session of congress. During the last war with Great Britain, it was provided, by an act which expired with the war, that, when the militia were in pay of the U. States, and acting in conjunction with the regular troops of the U. States, they were to be governed by the rules and articles of war in like manner with the regular forces, and subject to be tried by courts martial, these courts martial, however, to be composed of militia officers. It was also provided that the militia, when called into the service of the U. States, might, if the president of the U. States was of opinion that the public interest required it, be compelled to serve for a term not exceeding six months in any year. The sum of $200,000 is appropriated annually for the purpose of providing arms and equipments for the whole body of the militia of the U. States, which are divided among the states and territories respectively, in proportion to the number of effective militia in each. In all the states, the governor is commander-in-chief of the militia, with more or fewer restrictions. In Massachusetts, he has power to exercise, assemble and govern them, and to employ them to resist invasion or detriment to the commonwealth, but cannot march them out of the limits of the state without their free consent, or the consent of the general court, except that he may transport them by land or water out of the state, for the defence of any part of the state to which access cannot otherwise conveniently be had. By the constitutions of many of the states, especially those which are of recent origin, the governor is not commander-in-chief of the militia, when they are in the actual service of the U. States. This is to prevent collision between the general government and that of the separate states, such as took place between the government of Massachusetts and that of the U. States, during the last war with Great Britain. Such a provision exists in the constitutions of Connecticut, Pennsylvania, Delaware, South Carolina, Kentucky, Tennessee, Ohio, Indiana, Mississippi, Illinois, Alabama, Missouri, Maine. In some of the states, the governor is not to command personally, except when so advised by the legislature. This is the case in Vermont, Maryland, Kentucky, Indiana, Louisiana. In North Carolina, the governor cannot embody the militia of his own authority for the public safety, except in the recess of the general assembly. In some of the states, the organization of the militia is not provided for by the constitution, but left to be settled by the legislature: this is the case in Pennsylvania, Louisiana, Mississippi, Illinois, Alabama. In most of the states, however, particular provision is made for the election or appointment of officers of different degrees. In Massachusetts, the captains and subalterns are elected by the written votes of their companies, the field officers of regiments by the written votes of the captains and subalterns of their respective regiments, the brigadiers by the field-officers of their respective brigades. The governor commissions these officers. The major-generals are appointed by the senate and house of representatives, each having a negative on the other, and are commissioned by the governor. If the electors of brigadiers, field-officers and captains neglect to choose, the governor, with the advice of the council, fills vacancies. In New Hampshire, the general and field-officers of the militia are nominated by the governor and council. The captains and subalterns are nominated by the field-officers, and, if approved by the governor, appointed by him. The commanding officers of regiments appoint their adjutants and quarter-masters, the brigadiers their brigade-majors, the major-generals their aids, the captains and subalterns their non-commissioned officers. In Vermont, the militia companies elect their captains and other officers, and the captains and subalterns nominate and recommend the field-officers, who appoint their staff-officers. The superior officers are appointed by the governor and council. The provisions of the New York constitution are much the same as those of Massachusetts. In New Jersey, the captains and inferior officers are chosen by the companies, but field and general officers by the council and assembly. In Maryland, the officers of the militia are appointed by the governor. In North Carolina, the senate and house of commons appoint the generals and field-officers of the militia. In Georgia, the general officers of the militia are to be elected by the general assembly, and commissioned by the governor. The other officers are elected as the legislature may direct. In Kentucky, the commanding officers of the respective regiments appoint the regimental staff, brigadier-generals their brigage-majors, major-generals their aids, and captains the non-commissioned officers of companies. A majority of the field-officers and captains in each regiment nominate the commissioned officers in each company, who are commissioned by the governor. In Tennessee, field-officers, captains, subalterns and non-commissioned officers are elected by the citizens subject to military duty in the districts of these officers, brigadier-generals by the field-officers of their respective brigades, major-generals by the field-officers of their respective divisions. The governor appoints the adjutant-general, the major-generals appoint their aids, the brigadier-generals their brigade-majors, and the commanding officers of regiments their adjutants and quarter-masters. In Ohio, captains and subalterns are elected by their companies, majors by the captains and subalterns of the battalion, colonels by the majors, captains and subalterns of the regiment, brigadier-generals by the commissioned officers of their respective brigades; major-generals and quarter-master-generals are appointed by the joint ballot of both houses of the legislature. The governor appoints the adjutant-generals; the major-generals appoint their aids and other division officers, the brigadiers their majors, commanders of regiments their adjutants, quarter-masters, and other regimental staff-officers, and the captains and subalterns the non-commissioned officers and musicians. In Indiana, the elections are much as in Tennessee, except that brigadiers are chosen by all the commissioned officers of their respective brigades, and major-generals by the commissioned officers of their respective divisions. In Missouri, the constitution provides that field-officers and company-officers shall be elected by the persons subject to military duty within their respective commands; brigadier-generals by the field-officers of their respective brigades, and major-generals by the brigadiers and field-officers of their respective divisions, until otherwise directed by law. General and field-officers appoint their staff-officers. The governor appoints an adjutant-general, and all other militia officers whose appointments are not otherwise provided for. In Maine, the system is much as in the last-mentioned state, except that the major-generals are elected by the senate and house of representatives. The constitutions of some of the states exempt from militia duty, with more or less qualification, persons conscientiously scrupulous about bearing arms. This is the case with those of Maine, New Hampshire, New York, Pennsylvania, Tennessee, Indiana, Missouri, Illinois, Alabama. (See *Military Colonies*, *Military Dictricts*, *Army*, and *Army, Standing*.)

Milk; a secretion peculiar to the females of the class *mammalia*, or those animals which feed their young from their teats, and which takes place, in some of them, only during and after the time of gestation. It differs as procured from different animals, but its general properties are the same in all. When this fluid is allowed to stand for some time, it undergoes spontaneous changes, and is resolved into its component parts: a thick yellowish substance collects on the surface, which is *cream*, and the milk beneath becomes thinner than before, and is of a pale bluish color. When cream is kept for some days without being disturbed, it gradually becomes thicker, till at last it acquires the consistence of cheese; and hence one method of making cream-cheese, merely by putting cream into a linen bag, and leaving it there till it becomes solid. When cream is shaken, it is resolved into its component parts. The process by which this is accomplished is called *churning*, by which two substances are obtained, *butter* and *butter-milk*. In the making of butter, cream is allowed to stand for some time, during which an acid is generated. It is then put into a churn and shaken, by which the butter is gradually separated. What is left (the butter-milk) has a sour taste, but by no means so much so as that of the cream before the churning. Butter is sometimes also made from cream which has not become sour, but the process is much more tedious, the acid formed in the other case favoring its separation. Butter is merely an animal oil, solid at a natural heat, but held in solution in milk, by some of the other substances. As thus procured, it is not pure, but may in a great measure be freed from its impurities, by washing it with cold water; and though apt to become rancid, yet, when mixed with salt, may be kept any length of time. Milk from which butter has been taken, undergoes spontaneous changes. It becomes much sourer, and congeals into a mass of the consistence of jelly. When heated, the fermentation of this coagulum is hastened, and by the addition of certain substances, it very soon takes place; thus acids and spirit of wine curdle it, which is owing to the albumen it contains being acted on by them, in the same way as blood or white of eggs. By far the most powerful coagulator, however, is the substance called *rennet*, which is the decoction of the stomach of animals, as a calf. When the milk is previously heated, and rennet added, it is almost instantly coagulated. If after this it is cut, a thinnish fluid oozes from it, and if it be put into a bag and squeezed, the whole of this is forced out, and a whitish, tough matter is left; the former is *whey*, the latter *curd*. On this depends the process of making cheese, which varies in richness, according to the mode followed in preparing it. When milk is heated gradually, and merely to the temperature at which it curdles, and if the curd be freed gently from the whey, it retains almost the whole of the cream, which adds to its richness and flavor. But when it is curdled quickly, and the whey is speedily removed by cutting the curd, a great deal, or nearly the whole of the cream is carried off, and the cheese is poor, and has not the rich flavor of that made in the other way. The latter is the method generally followed in Scotland, where both cheese and butter are got from milk; for the whey procured in the process yields a considerable quantity of the latter; and hence the comparative poorness of Scottish cheese. In making cheese, having obtained the curd, and freed it from its whey, the remaining part of the process is merely to subject it to pressure, by which the whole of the whey is forced out, the color being communicated by the addition of coloring matter: that generally used is annotta, which is mixed with the milk. Whey has a pleasant taste, and contains a considerable quantity of a sweetish substance, called *sugar of milk*; hence it is frequently used as drink, and from its nutritious quality, it is administered to delicate people; hence the use of asses' milk, which contains a large quantity of it. It is from its containing this saccharine matter, that it is sometimes, as in some of the northern counties of Scotland, made to undergo fermentation, by which a very weak spirituous fluid is obtained. By evaporation it affords a minute quantity of saline matter and a considerable portion of sugar of milk. When whey or milk is exposed to a temperature between 60° and 80° it undergoes a spontaneous change, attended by the production of an acid, which was originally examined by Scheele, and has been termed *lactic acid*.

Milky Way. (See *Galaxy*.)

Mill; originally, a machine, adapted to divide, crush, or pulverize any substance; but more entensively applied, in modern times, to almost all machinery consisting of wheel-work, whether intended to change the form, or merely the position of the substance operated upon. The term as thus used is very indefinite, both in regard to the moving power and the application of the power or the process. Mills therefore take different names, from the process, as stamping-mills, saw-mills, fulling-mills, grinding-mills, &c.; from the moving power, as wind-mills, water-mills, hand-mills, steam-mills, &c.; or from the material operated upon, as cotton-mills, flour-mills, sugar-mills, oil-mills, &c. This great variety in the nature and uses of mills renders it impossible to give descriptions of them under one head. The general principles of the machinery and the moving powers will be found described under the heads *Mechanics*, *Hydraulics*, *Machinery*, *Pneumatics*, *Steam*, *Wheels*, &c., and their particular applications to different materials will be treated of under the appropriate heads. One of the earliest and most universal applications of machinery of this kind is to the comminution of grain. Among the rudest nations we find this done by pounding it between two stones; but with the first advances of art, a simple hand-mill is constructed, composed of an immovable nether-stone (Gr. μυλη) and an upper-stone (μύλος or ὄνος), put in motion by the hand. These machines were used by the Hebrews and Greeks, and commonly moved by slaves or criminals. Asses were afterwards employed. According to the Greek mythology Pilumnus, Myles, or Mylantes, invented the mill. Water-mills (*molæ aquariæ*) seem to have been used by the Romans. Wind mills (q. v.) were invented in the time of Augustus. Among the moderns the common mill for grinding grain is constructed with two circular stones placed horizontally. Buhr-stone is the best material of which mill-stones are made, but sienite and granite are frequently used for Indian corn and rye. The lower stone is fixed, while the upper one revolves with considerable velocity, and is supported by an axis passing through the lower stone, the distance between the two being capable of adjustment according to the fineness which it is intended to produce in the meal or flour. When the diameter is five feet, the stone may make about 90 revolutions in a minute without the flour becoming too much heated. The corn or grain is shaken out of a hopper by means of projections from the revolving axis, which give to its lower part, or feeder, a vibrating motion. The lower stone is slightly convex, and the upper one somewhat more concave, so that the corn, which enters at the middle of the stone, passes outward for a short distance before it begins to be ground. After being reduced to powder, it is discharged at the circumference, its escape being favored by the centrifugal force, and by the convexity of the lower stone. The surface of the stones is cut into grooves, in order to make them act more readily and effectually on the corn; and these grooves are cut obliquely, that they may assist the escape of the meal by throwing it outward. The operation of *bolting*, by which the flour is separated from the bran, or coarser particles, is performed by a cylindrical sieve placed in an inclined position and turned by machinery The fineness of flour is said to be greatest when the bran has not been too much subdivided, so that it may be more readily separated by bolting. This takes place when the grinding has been performed more by the action of the particles upon each other, than by the grit of the stone. For this sort of grinding, the buhrstone is peculiarly suited. The patent improvements of Evans consist of a series of machines calculated to save hand-labor, by performing every movement of the grain and meal from one part of the mill to another, or from one machine to another, by the force of the water.—For information on this subject, the reader may consult Evans's *Millwright's Guide* (6th edit. Philadelphia, 1829), or Buchanan's *Mill Work* (London, 1823, 2 vols.).

Milledgeville; a post-town, capital of Baldwin county, and metropolis of the state of Georgia, situated on the west bank of the Oconee, in lat. 33° 6′ N.; lon. 83° 20′ W. It is 87 miles south-west of Augusta. The public buildings are a state-house, a state arsenal, an academy, a court-house, a jail, four printing-offices, and houses of worship for Methodists, Baptists and Presbyterians. A branch of the state bank, and one of the Darien bank, are located here. Four weekly papers are published. The river here is 552 feet wide, 6 feet deep, and is navigable for boats of 70 tons. Above the town are rapids. About 8000 bags of cotton are annually deposited here, for the Darien and Savannah markets. The population of Milledgeville has not increased for several years. In 1824, it was estimated at 2000. The village of Macon, 34 miles south-west of Milledgeville, has become the principal scene of business for this part of the state, and the political metropolis has ceased to be regarded with interest by new settlers. (See Sherwood's *Gazetteer of Georgia.*)

Millennium (*thousand years*); generally taken for the thousand years in which some Christian sects expected, and some still expect, the Messiah to found a kingdom on earth, full of splendor and happiness. This opinion originated from the expectations of the Jews, in regard to a Messiah. Excited and nourished by their prophets, endeared to them by their sufferings during and after the Babylonish captivity, and by the national pride, which their misery served to increase, those expectations took a more and more decidedly sensual turn in the time of Jesus, particularly under the oppression of the Roman government. (See *Messiah.*) Jesus declared himself to be the expected Messiah, announcing his new religion as the fulfilment of the promises given by the prophets of the Old Testament. Notwithstanding his express declaration, that it was not his intention to establish a worldly kingdom, but a spiritual kingdom of truth and virtue, and notwithstanding the doctrine of his apostles, that a lasting happiness could only be expected in a better world, the new Christians could not refrain from expecting the glorious return of Jesus, as described by the apostles, on earth, and from interpreting the expressions of Jesus, which seem to favor such a hope, according to their wishes, bent on worldly happiness. These expectations, entertained by the converts from Judaism to Christianity, were blended with the images of a golden age, which had been imbibed by the converts from paganism, who still cherished the fictions of heathen mythology. Besides, it was natural, that the situation of the first Christians, groaning under the oppression of their heathen masters, should contribute to increase their desire for a new state of things. *Chiliasm*, or the expectation of the blessed millennium, became, therefore, a universal belief among the Christians of the first centuries, which was strengthened by the prophecies contained in Revelation (chap. xx. xxi.) of the signs which are to precede and indicate the happy times of the millennium. This belief was clothed in still more lively colors by the descriptions of such a state in some pseudo-prophetical writings, forged towards the close of the first, and the beginning of the second century, under the names of personages of the Old Testament and apostles (as the Testament of the twelve Patriarchs, the 4th book of Esra, the Revelation of Peter, &c.), and in the Sibylline books of the Christians, the Epistle of Barnabas, the Pastor of the Pseudo-Hermas, and in the Talmud. How eagerly such descriptions were received, is shown by the unanimity with which the doctrine of the millennium was adopted and promulgated by the Christian teachers of the first centuries. Not only the heretic Cerinthus, who had imbibed this doctrine from Judaism, but also orthodox teachers, as Papias of Hieropolis, Irenæus, Justin the Martyr, &c., delighted in the dreams of the glory and happiness of the millennium. Before it began, human misery, according to their opinion, was to rise to the highest degree; then the overthrow of the Roman empire would follow, and from its ruins would proceed a new state of things, in which the faithful who had risen from the dead, with those still living, would enjoy ineffable happiness. At that blissful period, every ear would produce 10,000 grains, and every grain 10 pounds of wheat flour, every vine would yield millions on millions of measures of wine, the innocence of Paradise would be united to every intellectual and sensual pleasure, the victory of the faithful over the unbelievers be complete, and the blessed reside in the heavenly Jerusalem, which would descend from heaven in extraordinary splendor and grandeur, to receive them in its magnificent habitations. The Millenarians founded their belief on the Mosaic history of the creation. Considering this history as a prototype of the fate of the world, and concluding from Psalm xc, that 1000 years make with God one day, they beheld in the six days of creation, 6000 years of terrestrial labors and sufferings, and in the seventh, the day of rest, a period of 1000 years, in which the reign of Christ should be established.—The Gnostics, despising matter, were adversaries to the dogma of the millennium, and the more zealously it was defended by the Montanists (for instance, Tertullian), the more suspicious did it gradually become to the orthodox also. The philosophic school at Alexandria, particularly Origen, opposed it in the third century by arguments, which were soon adopted by all the fathers. Lactantius was the last distinguished teacher of the primitive church who adhered to the idea of a millennium. When Christianity became the predominant religion of the Roman empire, the doctrine lost its interest for the multitude; victory, liberty and security, which the millennium was expected to bring, being now actually enjoyed by the Christians. The belief of the resurrection of the body, however, which could not be dispensed with in the pleasures which the Millenarians promised themselves, passed from them into the dogmas of the church, though the fathers of a later period supported it on different grounds from the Millenarians. Jerome and Augustine zealously opposed the gross ideas of the few enthusiasts, who, in the fifth century, were still expecting this period. Since that time, the church has rejected the dogma of the millennium, together with other Jewish notions. The expectation of the last day in A. D. 1000, gave it some weight for a short time only, and similar hopes excited by the crusades were soon disappointed by the event. At the time of the reformation, the doctrine of a millennium was in some degree revived, by its application to the overthrow of the papal dominion. But it was only some sects of fanatics, such as the Anabaptists, and some mystical enthusiasts, in whom the seventeenth century was rich, that adhered to these notions. During the religious and civil wars in France and England, the persecuted sought consolation in the dreams of a millennial kingdom: the raptures of the Mystics and Quietists among the Catholics led to a similar result, and the most learned and zealous friends of Chiliasm rose among the Lutherans during and after the 30 years' war. The disciples of Weigel and the adherents to the religious principles of Petersen, went the farthest; yet even many moderate and sober theologians, misled by idle speculations on the prophetic books of the Bible, particularly on the book of Revelation, which, up to the middle of the eighteenth century, formed a favorite occupation among a certain class of divines, indulged themselves in the ideas of a millennium. As the philosophical vindication of this doctrine, which was attempted in England by Thomas Burnet and Whiston, could not satisfy the orthodox Christians on account of the scepticism of its authors, several apocalyptics, among whom Bengel (q. v.) formed a separate school, exhausted their efforts in endeavoring to calculate, at least, the time in which the kingdom of Christ should commence. Bengel is of opinion, that this period will begin in the year 1836, and last 2000 years. While his disciples were flattering themselves with very sensual descriptions of the kingdom of Christ, Lavater and Jung Stilling, who possessed more imagination, but even less coolness and learning, indulged similar visions and predictions, with which they entertained their adherents up to the nineteenth century. Of all the vagaries of a disordered fancy, the doctrine of a millennium is one of the most useless, and, at the same time, one of the most dangerous. Aversion to all that exists, hatred of contemporaries, indolence and spiritual arrogance—these are its fruits; and the exercises of penitence, to which it leads, are nothing but the effects of terror, and without moral worth. Quite lately a sect (if this name can be given to the Mormonites) has sprung up in the U. States, believing, as far as we are informed, in the near approach of the millennium, whose enjoyments are to be of a sensual and worldly character.

Miller, Edward, M. D., an eminent physician and professor at New York, was born at Dover, in the state of Delaware, May 9, 1760. In 1778, he undertook the study of medicine. He began practice in Delaware, but made himself advantageously known in other states, by a disquisition on the Origin of the Yellow Fever, one of the earliest and ablest publications in support of the doctrine of *domestic* origin. In 1796, doctor Miller removed to the city of New York. Within a few weeks after, he formed, in concert with doctor S. Mitchill and doctor E. H. Smith, the plan of a periodical work, to be devoted to medicine. The first number was issued in 1797, under the title of the *Medical Repository*. No work of a similar kind had appeared in America. It excited medical inquiries, and recorded their results. It occasioned the establishment of similar journals in other parts of the U. States. Doctor Miller lived to see its fifteenth volume brought nearly to a close. In 1803, he was appointed resident physician for the city of New York. He witnessed, as such, several pestilential seasons. The fruits of his observation and reflection he embodied in a Report on the Rise, Progress and Termination of the Yellow Fever, to which a high degree of merit is ascribed. In 1807, he was elected professor of the practice of physic in the university of New York. In 1809, he became clinical lecturer in the New York hospital. Notwithstanding the laborious duties of those offices, and the calls of an extensive practice, he kept up an active correspondence with many distinguished physicians and men of letters in the principal parts of Europe and America. Professional honors were conferred upon him from all quarters. He died of typhus fever, March 17, 1812, in the 52d year of his age. His printed works have been collected and published in one large volume.

Miller, Joseph, a witty actor, whose name has become proverbial in the English language, was born in 1684, it is supposed in London, and was a favorite low comedian about the time that Congreve's comedies were fashionable, to the success of which, it is said, his humor much contributed. In these he performed Sir Joseph Wittol, in the Old Bachelor, and Ben, in Love for Love. Another of his favorite characters was Teague, in the Committee. He died in 1738. The jests which have immortalized his name, were collected by John Mottley, author of the life of Peter the Great, and other works. Joe Miller's Jests had run through eleven editions in 1751. A copy of the original edition was lately valued at ten guineas, in the catalogue of an eminent bookseller.

Millet is a coarse, strong grass (*holcus sorghum*), bearing heads of a fine round seed, a little larger than mustard seed. The plant, although coarse, makes good food for horses and cattle, and the seed is equally good for them; it is excellent for fattening poultry, and is sometimes made into bread. It is also used for making puddings, for which purpose it is by some preferred to rice.

Milliard (*French*); one thousand millions.

Millin, Aubin Louis; professor of antiquities at Paris, member of the academy of inscriptions and of the legion of honor, and, after the death of Barthélemy, *conservateur* of the imperial (royal) cabinet of medals and antiques. Millin was born in Paris, in 1759, and at first devoted himself to the study of natural history, but afterwards to that of philology, and finally to archæology. In his earlier writings he appeared as a partisan of republican principles; among these are his *Almanac Republicain*, and other works, which he did not include in the later catalogues of his publications. In the reign of Napoleon, he made two antiquarian excursions in France and Italy, where he discovered several remains which had been overlooked by the Italians. He was one of the most learned archæologists that France has produced. He edited the *Magazin Encyclopédique* nearly 20 years. Among his principal works are his *Dictionnaire des Beaux Arts; Monuments Antiques inédits; Galérie Mythologique; Peinture des Vases Antiques; Voyage dans les Départements du Midi de la France; Histoire Métallique de la Revolution Française; Histoire Métallique de l'Empereur Napoléon.* His lectures, which were fashionably attended, contributed, with his works, to diffuse a taste for the study of antiquities in France. His services as *conservateur* of the cabinet of antiques, of which he made a systematic arrangement, also deserve to be remembered. He died in 1818.

Millot, Claude François Xavier; a learned and ingenious French author, born in 1726, at Besançon. He was educated at the Jesuits' college, and became a member of that fraternity, but quitted it, and settled at Parma, where the patronage of the duke de Nivernois obtained him the historical professorship. This situation he filled with much ability and reputation for some years, when the prince of Condé offering to his acceptance the appointment of tutor to the young duke d'Enghien, he returned to Paris. His works, some of which are much esteemed for the spirit and elegance of their style, consist of a History of the Troubadours (in 3 vols.); Memoirs, Political and Military, for the History of the Reigns of Louis XIV and Louis XV (6 vols.), Elements of Universal History (9 vols.); Elements of the History of England (3 vols.); Elements of the History of France (3 vols. 12mo.), besides some academical papers, and a few translations from the Latin. His death took place in the French capital, in 1785.

Mills, Charles, a historian, born at Greenwich, in 1788, was articled to an attorney in London. Ill health and the attractions of literature prevented him from engaging in practice, and, in 1817, he published a History of Muhammedanism, which met with a favorable reception. He afterwards produced the History of the Crusades (1819); Travels of Theodore Ducas, at the Revival of Letters and Arts in Italy (1821), and the History of Chivalry (1825). He died October 9, 1826.

Milner, John, a celebrated Catholic divine and writer on theology and ecclesiastical antiquities, was born in London, in 1752, and finished his studies at Douay. In 1777, he was ordained a priest, and, in 1779, appointed pastor to the Catholic chapel at Winchester. Doctor Milner's study of ancient ecclesiastical architecture procured for him admission into the royal society of antiquaries in 1790. He contributed many valuable communications to the *Archæologia*, and published a Dissertation on the modern Style of altering Cathedrals, as exemplified in the Cathedral of Salisbury (1798). The same year, he published his History, Civil and Ecclesiastical, and Survey of the Antiquities of Winchester (2 vols., 4to.), and subsequently a Treatise on the Ecclesiastical Architecture of England during the Middle Ages (8vo.). Some observations in the history of Winchester gave offence to doctor Sturges, a prebendary of the cathedral, who animadverted on them in a tract entitled Reflections on Popery. Doctor Milner replied to this attack in his Letters to a Prebendary, which display great learning, ability and acuteness. In 1801, he published his Case of Conscience solved, or the Catholic Claims proved to be compatible with the Coronation Oath. On the death of bishop Stapleton, doctor Milner was appointed to succeed him as vicar apostolic in the midland district, with the title of *bishop of Castabala.* He for some time refused that dignity, but at length he was prevailed on to accept it, and was consecrated in 1803. In 1807 and 1808, he visited Ireland, that he might be enabled, from personal observation and intercourse, to form an opinion concerning the charges brought against the Roman Catholics of that country. As the result of his researches, he published his interesting Inquiry into certain vulgar Opinions concerning the Catholic Inhabitants and the Antiquities of Ireland. At this period, he was appointed agent in England to the Irish Catholic hierarchy. His solicitude for the interests of religion in both countries induced him to take a journey to Rome in 1814, and he remained there about 12 months. In 1818, he published a treatise entitled the End of Religious Controversy, containing a defence of those articles of the Catholic faith usually regarded as objectionable by Protestants. This was succeeded by his Vindication of the End of Religious Controversy against the Exceptions of the Bishop of St. David's and the reverend Richard Grier; and a Parting Word to Reverend R. Grier; with a Brief Notice of Doctor Samuel Parr's Posthumous Letter to Doctor Milner. His death took place in 1826.

Milo; an island in the Greek Archipelago; the ancient Melos. (See *Melos.*)

Milo, a native of Crotona, in Italy, was a scholar of Pythagoras, and one of the most celebrated Grecian athletes. He bore off the prize six times in the Olympic games. Of his prodigious strength many instances are cited. When the temple in which Pythagoras was teaching his pupils was on the point of falling, Milo seized the main pillar, and delayed the destruction of the edifice until all present had escaped. He once carried a bull to the sacrifice on his shoulders, and killed it with a blow of his fist. His strength, however, was the cause of his death. Seeing in a forest a strong trunk of a tree, which it had been in vain attempted to split with wedges, he determined to pull it asunder; but his strength was insufficient. The wedges which had kept the cleft open had dropped out, and he remained with his hands fastened in the fissure. No one coming to his assistance, he was devoured by wild beasts. According to the tradition of the Pythagoreans, Milo was pursued to his house in Crotona by Cylo, shut up, and burned.

Miloradowitch, Michael Andreewitch, count of, a distinguished Russian officer, was born in 1770; served in 1787 against the Turks, in 1794 against the Poles; rose rapidly; commanded, in 1799, the vanguard of Suwarrow's army in Italy, as major-general; fought, in 1805, as lieutenant-general in the battle of Austerlitz. In 1808, he fought victoriously against the Turks, and, in 1812, organized the first *corps de reserve*, and led it to the main army before the battle of Mosaisk. He was of great service during this whole campaign against the French, as also in the succeeding war in 1813. He contributed essentially to the victory of the allies at Culm (q. v.), commanding, under the grand-prince Constantine, a *corps de reserve*, consisting of Prussian grenadiers and cuirassiers, and the Russian and Prussian guards. In the battle of Leipsic, he was again active, and marched with the armies into France. After the peace, he was appointed military commandant of St. Petersburg. In the insurrection of the troops, in 1825, at the ascension of the emperor Nicholas, he was killed by a pistol-shot. As an active commander of vanguards he had few equals.

Miltiades; an Athenian general, who lived about B. C. 500. He had already successfully established an Athenian colony in the Chersonesus, and subjected several islands in the Ægean to the dominion of his country, when Darius, at the head of a formidable army, undertook the subjugation of Greece. Miltiades, Aristides and Themistocles animated the Athenians, disheartened by the superior numbers of the enemy, to resistance. Each of the 10 tribes placed 1000 men under the direction of a leader. This little army advanced to the plains of Marathon (B. C. 490), where 1000 foot soldiers, sent by their allies the Platæans, joined them. Miltiades was in favor of an attack; Aristides and some of the other generals supported him; others, on the contrary, wished to wait for the auxiliaries from Lacedæmon. The general-in-chief (polemarch), Callimachus, however, concurred with the proposal of Miltiades, and the attack was determined upon. The chief command, which belonged to all the generals alternately, was unanimously conferred on Miltiades, who nevertheless made no use of it, but waited for the day which regularly called him to the head of the army. He then drew up his troops at the foot of a mountain in a wooded plain, to impede the action of the enemy's cavalry. The Platæans occupied the left wing; Callimachus commanded the right, and Aristides and Themistocles the centre of the army. Miltiades himself was in every part where his presence was necessary. The Greeks began the attack at full speed; the Persians defended themselves with coolness, but with obstinacy, until, after a contest of several hours, both their wings gave way. In the centre, Datis, the Persian general, with his best troops, pressed Aristides and Themistocles hard; but being attacked in the rear by the Greeks, he was compelled to forego his advantages. The rout was now general. Those who escaped the sword were obliged to flee to the waves; of these, many fell into the hands of the Greeks. The Persians lost 6400 men, the Athenians 192. Miltiades was himself wounded. Glorious as this victory was, it would have been fatal to Athens, had it not been for the activity of Miltiades. Datis determined to fall upon Athens in his retreat, and his fleet had already passed cape Sunium, when Miltiades, receiving information of it, immediately put his troops in motion, and arrived under the walls of the city in time to compel the enemy to return to the coast of Asia. Miltiades was then highly honored, but was soon both envied and persecuted. His enemies represented that he might easily be tempted to possess himself of absolute power. An unsuccessful enterprise, of which he was the projector, facilitated their success. He had desired that a fleet of 70 ships should be placed at his disposal, and promised, by means of it, to put the Athenians in possession of great wealth and advantages. His design was probably to plunder some of the Persian cities on the coasts, and to punish those islands of the Ægean sea which had taken part with the Persians; but he failed in his attack on Paros, and was compelled to refund the expenses of the expedition, and died of his wounds in prison.

Milton, John, one of the most eminent of English poets, sprang from an ancient family, formerly proprietors of Milton, near Thame, in Oxfordshire. His grandfather, who was under ranger of the forest of Shotover, being a zealous Roman Catholic, disinherited his son, the father of Milton, for becoming a Protestant, on which account he was obliged to quit his studies at Oxford, and settle in London as a scrivener. This gentleman, who was a good classical scholar, and remarkable for his skill in music, had two sons and a daughter: John, the poet, Christopher, who became a judge in the court of common pleas, and Anne, who married Edward Phillips, secondary at the crown office. John Milton was born at his father's house in Bread-street, December 9, 1608. He received his early education from a learned minister of the name of Young, and was afterwards placed at St. Paul's school, whence he was removed, in his seventeenth year, to Christ's college, Cambridge, where he graduated M.A, and distinguished himself by the purity and elegance of his Latin versification. The original purpose of Milton was to enter the church; but his dislike to subscription and to oaths, which, in his opinion, required what he termed "an accommodating conscience," prevented the fulfilment of this intention. On leaving college, therefore, he repaired to his father's house, who, having retired from business, had taken a residence at Horton, in Buckinghamshire. Here he passed five years in a study of the best Greek and Roman authors, and in the composition of some of his finest miscellaneous poems, including his Allegro and Penseroso, Comus and Lycidas. That his learning and talents had by this time attracted considerable attention, is proved by the production of Comus, at the solicitation of the Bridgewater family, which was performed at Ludlow castle, in 1634, by some of its youthful members; as also by his Arcades, part of an entertainment, performed before the countess-dowager of Derby, in the same manner, at Harefield. In 1638, having obtained his father's consent to travel, he visited Paris, where he was introduced to Grotius, and thence proceeded successively to Florence, Rome, and Naples, in which latter capital he was kindly entertained by Manso, marquis of Villa, the patron of Tasso. His general reception in Italy was also highly complimentary, although he would not disguise his religious opinions. After remaining abroad for fifteen months, he returned to England, giving up his intention of visiting Sicily and Greece, in consequence of accounts of the state of affairs of his own country. "I esteemed it dishonorable," he writes, "for me to be lingering abroad, even for the improvement of my mind, while my fellow-citizens were contending for their liberty at home." He settled in the metropolis, and undertook the education of his two nephews, the sons of his sister, Mrs. Phillips. Other parents being also induced by his high character to apply to him, he engaged a house and garden in Aldersgate-street, and opened an academy for education. However engrossed by tuition, he soon found time to mingle in the controversial struggles of the day, and published four treatises relative to church government, which produced him antagonists in bishop Hall and archbishop Usher. A fifth production followed, entitled Reasons of Church Government urged against Prelacy, in which he promises to undertake something, but yet he knew not what, which "might be of use and honor to his country;" a calm anticipation of great performance, which he amply redeemed by his Paradise Lost. About this time, his father, who was disturbed in his residence by the king's troops, came to reside with his son John, who, in 1643, united himself in marriage with Mary, daughter of Richard Powel, Esq., a magistrate in Oxfordshire. In more than one respect, this was an unsuitable connexion; for the father of the lady being a zealous royalist, who practised the jovial hospitality of the country gentlemen of that party, the residence of her husband so disgusted the bride, that in less than a month, under the pretence of a visit, she left him, and remained for the rest of the summer with her parents. His letters and messages for her to return home being treated with neglect, Milton at length became incensed, and regarding her conduct as a desertion of the marriage contract, he sought to punish it by repudiation. To this matrimonial disagreement is to be attributed his treatises, the Doctrine and Discipline of Divorce; the Judgment of Martin Bucer concerning Divorce; and Tetrachordon, or Exposition upon the four chief Places in Scripture which treat of Marriage. The Presbyterian assembly of divines, then sitting at Westminster, alarmed at this reasoning, had the author called up before the house of lords, which, however, instituted no process. Convinced by his own arguments, Milton began to pay attention to a young lady—a step which alarmed the parents of his wife, who, having become obnoxious to the ruling powers, had need of the good offices of their son-in-law with his party. Thus disposed, they surprised him into an interview with Mrs. Milton, whom, on her expression of penitence, he not only received again with affection, but also took her parents and brothers, in the most generous manner, into his own house. He continued to employ his pen on public topics, and, in 1644, published his celebrated Tractate on Education. The Presbyterians, then in power, having continued the subsisting restraints upon the press, he also printed, in the same year, his Areopagitica, a Speech for the Liberty of Unlicensed Printing,—a spirited and energetic defence of a free press. In 1645, he published his juvenile poems, in Latin and English, including, for the first time, the Allegro and Penseroso. Milton's notions of the origin and end of government carried him to a full approbation of the trial and execution of Charles I, which he sought to justify in a tract, entitled the Tenure of Kings and Magistrates. Even in the title-page he asserts the right to put "a tyrant or wicked king" to death on due conviction, "by any who possess the power," should the ordinary magistrates have no means to do so. He farther employed his pen in the same cause by the composition of a History of England, of which, however, he had only completed six books, when he was interrupted, by being nominated Latin secretary to the new council of state. He had scarcely accepted the appointment, when he was requested to answer the famous book, attributed to Charles I, entitled *Ikon Basilike.* This task he accomplished in a work, which he called *Iconoclastes*, or the Image-breaker, which is considered by many writers as one of the ablest of his political tracts. His celebrated controversy with Salmasius soon after followed, which originated in the latter's defence of Charles I, and of monarchs, under the title of *Defensio Regis*, written at the instigation of the exiled Charles II. Milton entitled his reply, *Defensio pro Populo Anglicano.* It was published in 1651, and though tainted with party virulence and the discreditable personal acrimony which distinguished the controversies of the times, exhibits a strain of fervid eloquence, which completely overwhelmed the great but inadequate powers of his opponent. He acquired by this production a high reputation both at home and abroad, and was visited on the occasion by all the foreign ambassadors then in London; he also received from the government a present of £1000. He, however, bought this triumph dear, as an affection of the eyes, previously produced by intense study, terminated, as his physicians predicted, in an irremediable *gutta serena*, owing to his exertions on this occasion. It is unnecessary to observe how nobly and feelingly he has alluded to his blindness in more than one passage of his exalted poetry. His loss of sight did not, however, impede his facility of composition, and in 1652 he wrote a second Defence of the People of England, against an attack by Du Moulin, under the name of More, similar to that of Salmasius. In 1652, Milton lost his wife, who had borne him three daughters, and soon after married another, who died in childbed the same year. To divert his grief for this loss, he resumed his History of England, and also made some progress in a Latin dictionary, and still composed much of the Latin correspondence of his office. On the death of Cromwell, he employed his pen with great alacrity to check the increasing feeling in favor of the restoration. On the restoration, Milton took refuge for some time in the house of a friend. His Defences of the People and Iconoclastes were called in, and ordered to be burnt; but the author was reported to have absconded; and in the act of indemnity which followed, his name formed no exception. He appears, however, to have been some time in the custody of the sergeant-at-arms, but was at length discharged, as it is said, owing to the friendly interposition of sir William Davenant, who had received similar kind offices from Milton, when endangered by his adherence to the royal cause. In reduced circumstances, and under the discountenance of power, he now removed to a private residence, near his former house in the city, and, his infirmity requiring female aid, was led, in his fifty-fourth year, to take, as a third wife, Elizabeth Minshull. He now resumed the poetical studies which he had for some years laid aside, and, left in repose to meditate upon the lofty ideas that filled his mind, produced his immortal Paradise Lost, which was finished in 1665, and first printed in 1667, in a small 4to. The sum which he obtained for it was five pounds, with a contingency of fifteen dependent upon the sale of two more impressions, the copyright, however, remaining his own. Paradise Lost long struggled with bad taste and political prejudices, before it took a secure place among the few productions of the human mind which continually rise in estimation, and are unlimited by time or place. In 1670 appeared his Paradise Regained, which he is said to have preferred to its predecessor. With Paradise Regained, appeared the tragedy of Samson Agonistes, composed upon the ancient model, and abounding in moral and descriptive beauties, but exhibiting little pure dramatic talent, either in the developement of plot or delineation of character, and never intended for the stage. In 1672, he composed a system of logic, after the manner of Ramus; and the following year again entered the field of polemics, with a Treatise of True Religion, Heresy, Schism, Toleration, and the best Means of Preventing the Growth of Popery. A publication of his familiar epistles, in Latin, and of some academical exercises, occupied the last year of his life, which repeated fits of the gout were now rapidly bringing to a close. He sank tranquilly under an exhaustion of the vital powers in November, 1674, when he had nearly completed his sixty-sixth year. His remains, with a numerous and splendid attendance, were interred in the church of Cripplegate, where the elder Samuel Whitbread has erected a monument to his memory. Dr. Sprat, bishop of Rochester, as dean of Westminster, denied him a monument in the abbey, where, however, in 1737, one was erected to his memory by auditor Benson. Milton was distinguished in his youth for personal beauty; his habits of life were those of a student and philosopher, being strictly sober and temperate; his chief relaxations consisted of music and conversation. His temper was serene and cheerful; and although warm and acrimonious in controversy, he appears to have indulged no private enmities, and to have been civil and urbane in the ordinary intercourse of society. Of the sublimity of the genius, and the depth and variety of the learning of Milton, there can be no difference of opinion; and in respect to the first, his own countrymen, at least, will scarcely admit that he has ever been equalled. Had he never even written Paradise Lost, his Allegro, Penseroso, and Comus, must have stamped him a poet in the most elevated sense of the word. In his prose writings his spirit and vigor are also striking, and his style, although sometimes harsh and uncouth, is pregnant with energy and imagination. Moving in the ranks of party himself, no man's fame has been more rancorously attacked than that of Milton, by political animosity; but after all the deductions it has been able to make, as a man of genius he will ever rank among the chief glories of the English nation. The best editions of the poetical works of Milton are those of Newton, Hawkins and Todd (6 vols., 8vo., with his life in one volume). His prose works have been published by Symmonds, with an account of his life (7 vols., 8vo.) Thomas Warton published an edition of the minor poems with a valuable commentary. In 1825, an unpublished work on the Christian Doctrine was discovered among some state papers, and published in the original Latin, and in an English translation, by Mr. Sumner, a royal chaplain. This publication led to a new discussion, not only of the theological tenets, but of the general merits of Milton, in the English and American periodical works of the time. The most celebrated treatises thus produced were the one in the Edinburgh

Review by Mr. Macaulay, and the one in the Christian Examiner (Boston) by the Rev. Dr. Channing.

Mimes (μιμη, imitation). The Greeks gave this name to short plays, or theatrical exhibitions, the object of which was to represent some action of a simple nature. They consisted merely of detached scenes, generally of a comic character, and often of a dialogue composed extemporaneously; they were commonly exhibited at feasts, but appear to have also been occasionally represented on the stage. The mimes of Sophron of Syracuse were a kind of comic delineations of real life in rhythmical Doric prose, which Theocritus imitated in his Idyls. Among the Romans, the mimes were, at first, irregular comedies, calculated to amuse the people by their broad humor; they afterwards assumed a more artificial form. The actors who performed them were also called *mimes*, and differed from the pantomimes (q.v.), who represented every thing by action. Decimus Laberius (50 B. C.) and Publius Syrus, his contemporary, were the principal mimographers, or authors of mimes. (See Ziegler, *De Mimis Romanorum*, Göttingen, 1789.)

Mimic. (See *Pantomime.*)

Mimnermus; the name of an ancient Greek poet and musician, known, according to Athenæus, as the inventor of the pentameter measure in versification. Strabo assigns Colophon as the city of his birth, which took place about six centuries before the commencement of the Christian era. Horace speaks in the highest terms of his love elegies, which he prefers to the writings of Callimachus, while Propertius places him before Homer in the expression of the softer passions. Both he and his mistress, Nanno, are said to have been musicians by profession, and to have been celebrated for their performance on the flute, especially, according to Plutarch, in a particular air, called *Kradias*, used at the Athenian sacrifices. A few fragments only of his lyric poems have come down to posterity, as preserved by Stobæus; they are, however, of a character which leads us to suppose that the high reputation he enjoyed was not unmerited. Nothing is known of the time or manner of his death. (See Schönemann's *De Vita et Carm. Mimnermi*, Göttingen, 1824.)

Mimosa. (See *Sensitive Plant.*)

Mina, don Francisco Espoz y, one of the most distinguished of the Spanish patriots, is a native of Navarre, and was born, in 1782, at a small village about two miles from Pampeluna. By some he has been represented as the son of a peasant, but he is, in fact, of a family of some consequence. During the war against the French, his nephew, don Xavier Mina, then a student at the university of Saragossa, raised a guerilla corps, with which he performed several spirited exploits. Xavier being taken prisoner, in March, 1810, the command of the corps was transferred to Francisco, who soon rendered his name the terror of the French. Brave, active, indefatigable, full of resources, and possessed of admirable presence of mind, he incessantly harassed and wore down the strength of the enemy, not only in Navarre, but in the neighboring provinces of Alava and Arragon. Such was the rapidity of his movements that nothing could escape him. The loss which the French sustained in this kind of warfare was incalculable, while his was trifling, as the accuracy of the intelligence which he received prevented him from being ever surprised; and when he was far outnumbered, his troops disbanded by signal, and reunited again in a few hours, and resumed offensive operations. It was in vain that, resolving to exterminate his division, the enemy poured 25,000 men into Navarre. He not only stood his ground, but eventually remained master of the province; he was, in fact, often denominated the *king of Navarre.* In 1811, the regency gave him the rank of colonel; in 1812, that of brigadier-general, and soon after, that of general. His force, in 1813, consisted of 11,000 infantry and 2500 cavalry, and with this he coöperated in the blockade of Pampeluna, and recovered Saragossa, Monzon, Tafalla, Jaca, and various other places. When the peace was concluded, he was besieging St. Jean Pied de Port. After having put his division into quarters, he went to Madrid, and had the mortification to find that he had been laboring only for the reëstablishment of despotism. Disgusted with the conduct of Ferdinand, and having fruitlessly remonstrated with him, he endeavored to persuade the other Spanish generals in the capital to join with him and make an effort in the cause of freedom; but his efforts were rendered abortive by the influence of the priesthood. Mina then hastened to Navarre, with the intention of putting himself at the head of his division; but he found that the new captain-general had dismissed the troops which composed it. He, however, gained over the garrison of Pampeluna, and was on the point of proclaiming the constitution, when his plan was frustrated by the pusillanimity of some of the officers. He had now no resource but to seek an asylum in France, and he reached Paris in safety. While he was residing in the French capital, he was arrested by a commissary of police, whom the Spanish ambassador, count de Casa Flores, had persuaded to commit this act of insolence and injustice. Louis turned the commissary out of his place, insisted on the ambassador being recalled, and not only released Mina, but granted him a pension of 6000 francs. The Spanish general was not ungrateful. He refused to have any intercourse whatever with Napoleon, quitted France, and joined the king at Ghent, and returned with him to Paris. Till the army at Cadiz raised the standard of freedom, he continued to live very privately in France; but as soon as that event took place, he hurried back to Navarre, collected a few hundred of his followers, issued a proclamation calling on the rest to join him, and was advancing against Pampeluna, when a deputation was sent to him by the inhabitants to inform him that the city had accepted the constitution. After the king had submitted to the new order of things, Mina was appointed captain-general of Navarre (1821). His talents were soon required in the field. A few fanatics and lovers of despotism having succeeded in exciting a formidable insurrection in Catalonia, Mina was intrusted with the command of the army destined to act against them. The rugged nature of the country in which he had to act, the weakness of his own army, and the strength of the rebels, rendered his operations seemingly tardy at the outset, and the ultra-royalists began to manifest the utmost confidence and exultation; but they soon discovered that they had wofully miscalculated. Mina was too prudent to commit any thing to chance, when a repulse might have been productive of disastrous consequences; but as soon as he had prepared every thing for the conflict, he attacked the bands of the traitors with his wonted impetuosity, routed them in several encounters, and drove them, in the utmost confusion, over the Pyrenean frontier into the French province of Rousillon. This success gained him the rank of lieutenant-general in 1823. His humanity and prudence obtained him the general esteem, and he had already effected a levy against the French invasion, but was so feebly supported that he was convinced of the inutility of his efforts, and submitted to Moncey, October 17. He embarked for London, where he was received with every token of respect. Mina afterwards resided in England and France until 1830, when, encouraged by the events of the summer of that year, he placed himself at the head of a body of exiles, and entered Spain. Dissensions among the patriots deprived Mina of the influence necessary to produce unity of action; but, although most of the measures adopted were disapproved of by him, he exerted himself with undiminished zeal, and rendered important services. His policy was to throw himself into the mountains, and protract the struggle by maintaining a guerilla warfare. The patriots, on the other hand, determined to come to action, in which they were defeated, and they were saved only by the skilful conduct of Mina from entire destruction. He arrived on the French frontier in a state of complete destitution. As he was the chief object of pursuit, he had encountered hardships and perils of the most appalling nature. On passing the frontier, Mina and the other patriots were disarmed and conducted into the interior. (See *Spain.*)—His nephew, don Xavier (born in 1789), was a student of theology in 1808, when he left his college, and became a guerilla chief. Having been made prisoner by the French, he was sent to France, where he remained until 1814. After the unsuccessful attempt at Pampeluna, he fled with his uncle to France, and, in 1816, embarked for Mexico to join the insurgents against the mother country. Here he fell into the hands of the Spaniards, and was shot, November 11, 1817.

Mina (*μνα*), among the Greeks; a weight of a hundred drachmæ (q. v.); also a piece of money valued at a hundred drachmæ; 60 of them were equivalent to a talent.

Minaret; a round tower, generally surrounded with balconies, and erected near the mosques in Mohammedan countries, from which the *muezzin* summons the people to prayer, and announces the hours, bells, as is well known, not being in use among the Mohammedans. (See *Mosque.*)

Minas Geraes; a province of the central part of Brazil, so called from the richness and variety of its mines. It is between 14° and 23° south latitude and 45° 20′ and 52° 30′ west longitude, to the south of the provinces of Pernambuco and Bahia. It is in general mountainous, with an agreeable and healthy climate, and a fertile soil, yielding a great variety of fruits, aromatic plants, &c. Its mineral productions are gold, iron, lead, quicksilver, arsenic, bismuth, antimony, diamonds and other precious stones, salt, sulphur, &c. It contains a population of 514,500 inhabitants, of whom 131,000 are whites, 150,000 free mulattoes, 51,544 free blacks, and 182,000 slaves. Chief town, Villa-Rica.

Mincio (Mincius); a considerable river of Italy, which flows from lake Garda, and, after forming the lake and marshes that surround Mantua, falls into the Po eight miles below the city. Its banks are remarkably fertile, and are celebrated by Virgil, who was a native of this country, for the beauty of their scenery.

Mindanao, or **Magindanao**; one of the Philippine islands, and next to Luçon in point of size, of a triangular form, about 300 miles long and 105 broad, with many deep bays; discovered by the Spaniards who accompanied Magellan, in 1521. It lies south-east of Manilla, at the distance of 600 miles. All the country, except upon the sea-coast, is mountainous, yet it abounds in rice, and produces very nourishing roots. There are infinite numbers of the palm-trees, called *sago*. (q. v.) This island likewise produces all sorts of fruits that are to be found in other islands of this archipelago, but the cinnamon-tree is peculiar to Mindanao, and grows on the mountains without cultivation. In the sea between this island and that of Xolo, very large pearls are taken. Lon. 122° to 126° 27′ E.; lat. 5° 40′ to 9° 55′ N. The population is about 1,000,000.—*Mindanao*, the principal town and the residence of the sultan, is on the Pelangy, about six miles from its mouth; lon. 124° 40′ E.; lat. 7° 9′ N. The town properly called Mindanao contains only about 20 houses, but Selangan, opposite to it, makes with it but one town. (See *Philippines*.)

Minden; a town of Prussia, in the province of Westphalia, government of Minden, on the left bank of the Weser; lat. 52° 17′ N.; lon. 8° 53′ E.; population, 8960. It is one of the oldest towns in Germany, and was formerly the see of a bishopric, secularized in 1648. Its fortifications have been repaired since 1814; the stone bridge over the Weser is 600 feet long by 24 wide. It lies partly on a plain and partly on a mountainous ridge, in which is a singular opening, called *Porta Westphalica*, through which the Weser flows. Minden was twice captured by the French in the seven years' war (1757 and 1759), and a third time in 1814. The government of Minden formed a part of the kingdom of Westphalia in 1807, and, in 1810, of the French department of the Upper Ems. In 1814, it was restored to Prussia.

Mindoro. (See *Philippines*.)

Mine, in military language; a subterraneous passage dug under the wall or rampart of a fortification, or under any building or other object, for the purpose of blowing it up by gunpowder. The gunpowder is in a box, and the place where the powder is lodged is called the *chamber* (in French, *fourneau*). The passage leading to the powder is termed the *gallery*; the line drawn from the centre of the chamber perpendicularly to the nearest surface of the ground is called the *line of least resistance*. It has been found, by experience, that the figure produced by the explosion is a paraboloid, and that the centre of the powder, or charge, occupies the *focus*. The pit, or hole made by springing the mine, is called the *excavation*. The fire is communicated to the mines by a pipe, or hose, made of coarse cloth, whose diameter is about 1½ inch, called a *saucisson* (for the filling of which near half a pound of powder is allowed to every foot), extending from the chamber to the entrance of the gallery, to the end of which is fixed a match, that the miner who sets fire to it may have time to retire before it reaches the chamber. The saucisson is laid in a small trough, called an *auget*, to prevent it from contracting any dampness. This is made of boards. The mines of a fortress are called *countermines*, the gallery of which runs under the covered way along the outer margin of the fosse. From this, ramifications, called *rameaux*, extend under the glacis, from which again little passages are made on both sides, to afford means for listening and finding out the enemy's subterraneous movements. If the powder is lodged so deep under the ground that its explosion is not perceptible on the surface, it yet shakes the ground all around, and destroys the hostile mines in the neighborhood. This is the *globe de compression*, invented by Belidor. The mining-war has many peculiarities. The miners are often armed with short weapons, as pistols and cutlasses, in order to defend themselves, if they meet a hostile mine. The mines are often so long that it is necessary to convey fresh air by artificial means to the most advanced workmen, and those who faint are passed back from one to the other, the same is done with the dead, if a combat ensues below. Frequently, also, balls, made of all kinds of substances which produce an offensive smoke, are lighted, in order to stop the enemy, provided the mine permits the party who leave the ball an easy retreat. Sometimes mines are dug in the field, with a view of blowing up such of the enemy as can be allured to the spot. In such case, a small body of men must sometimes be placed there, in order to induce the enemy to attack them; these are sacrificed with the enemy.

Mine; an excavation for obtaining minerals from the bowels of the earth. The minerals are found in veins, strata, lumps, and contain gold, silver, platina, quicksilver, lead, iron, copper, tin, zinc, calamine, bismuth, cobalt, arsenic, manganese, antimony, molybdena, and other metallic substances; also sulphur, brown-coal, pit-coal, bitumen, alum, and all combinations of sulphuric acid with metallic bases. The mines are generally denominated from the substances obtained from them; for instance, gold, silver, iron, lead, coal, alum, salt-mines, &c. We must distinguish, 1. the mines in primitive mountains; 2. those in flœtz mountains; 3. those in alluvions. Of the first sort the most important are the following:—1. The mines in the Cordilleras, in Spanish America. There are few regions so remarkable for their richness in minerals as this chain of mountains. The most important mines are the silver mines; yet there are also several gold, quicksilver, copper and lead mines. In Chile, especially in the province of Coquimbo, are several silver and some important copper mines. The richness of the silver mines of Potosi (Buenos Ayres) may be judged of from the fact that over 1300 millions of dollars have been coined there since the year 1545; but the ores are now poor. Copper, lead and tin are also found in Buenos Ayres, the latter, however, in beds of sand or clay, from which it is obtained by washing. On the opposite side of the chain, in a low plain, are the silver mines of Guantajaya, famous for the large lumps of solid silver, which they formerly furnished, and of which one weighed eight hundred pounds. In Peru, there are 40 districts particularly famous for their gold and silver mines. Gold is found especially in the provinces of Guailas and Pataz, and silver in the districts of Guantajaya, Pasco and Chota. The mines of Pasco, which 25 years ago produced more than two millions of dollars yearly, had been, like most of those of South America, very negligently managed, till, in 1816, miners from Cornwall began to work them by means of steam-engines. The mines of the province of Chota now furnish about 42,000 pounds troy of silver every year. The quicksilver mine of Guancavelica, in Peru, is the only one of this kind in the new world. In the province of Guantajaya, rock-salt mines also are found. North of the province of Chota, the Cordilleras are not so rich in metals. In New Grenada there are several silver mines; at Aroa, in Caraccas, a copper mine exists, which yields 1400—1600 cwt. of metal yearly, and at Santa Fe rock-salt and pit-coal are found. Although Mexico contains various metals, very little except silver has been obtained from that country Almost all the mines are situated in the Cordilleras, and consist of 3000 pits, which comprise 4—5000 beds, or layers, and may be divided into eight large districts (reales), beginning from the south:—*a.* the district of Oaxaca, on the southern boundary of Mexico, which, besides the silver mines, contains the only gold mine of this state; *b.* the district of Tasco, 50—70 miles south-west from the city of Mexico; *c.* the district of Biscania, about 50 miles north-east from the capital, contains the mines of Pachuco, Real del Monte, Moran, all very rich; *d.* the district of Zimapan contains, besides many silver mines, beds of lead and arsenic; *e.* the district of Guanaxuato contains the richest mines of Mexico, and among others those of Guanaxuato, Catorce, Zacatecas and Sombrerete. This district produces half of all the silver of Mexico. In the neighborhood of this district copper mines are also worked, yielding annually 4000 cwt. There are also mines of tin and quicksilver. *f.* The district of New Galicia, where the rich mines of Bolanos are. *g.* The district of Durango and Sonora. *h.* The district of Chihuahua. Besides the mines contained in these districts, there are several others in Mexico. The working of all the mines of Spanish America has been very imperfectly carried on until the present times. Some years ago, several joint-stock companies were established in England and on the Rhine, for the purpose of conducting them better. Many of the companies suffered large losses. The produce of silver in Spanish America at the beginning of the present century, according to A. von Humboldt, was 3,259,153 marcs, about 2,036,970 lbs. troy, of the nominal value of about 31,120,000 dollars. Of this sum, Mexico yielded 2,196,140 marcs; Peru, 573,958 marcs; Buenos Ayres, 463,098 marcs, and Chile 25,957 marcs. Gold is principally obtained in America by washing. The principal gold-washings are on the western side of the Cordilleras; in New Grenada, from the province of Barbacoa to the isthmus of Panama; in Chile, and on the shores of the gulf of California; or on the eastern side in the upper valleys of the Amazon. The washings of

New Grenada also furnish platina.—2. The mines of Hungary, including those of Transylvania, and of the Bannat of Temeswar, compose four great districts:—*a.* the north-western, which includes the mines of Schemnitz, Kremnitz, Kœnigsberg, Neusohl, Schmœlnitz, Bethler, Rosenau, &c., which chiefly furnish gold, silver, copper, lead, &c.; *b.* the north-eastern, containing the mines of Nagybanya, Kapnick, Felsœbanya, Wiszbanya, Olaposbanya and Olapos, which all yield gold, besides the mines of Marmarosch, which furnish great quantities of iron; *c.* the eastern district, in which the mines of Nagyag, Korosbanya, Vœrœspatak, Boitza, Csertesch, Fatzbay, Almas, Porkura, Botschum and Stonischa deserve notice, which chiefly furnish gold and copper; near Vayda-Huniad and Gyalar are important iron mines; *d.* the south-western district, or the mines of the Bannat of Temeswar, yields silver and copper in Oravitza, Moldawa, Szaska and Dognaczka, while in Dombrawa and Ruchersberg, iron, quicksilver and cobalt are obtained. Hungary contains also mines of pit-coal and rock-salt, the latter especially on the banks of the Danube, the Marmarosch and the Nera. The whole produce of Hungary amounts to 5200 marcs (3250 lbs. troy) of gold, 85,000 marcs (53,125 lbs. troy) of silver, 36,000—40,000 cwt. of copper, 6—8000 cwt. of lead, and about 60,000 cwt. of iron.—3. The mines of the Altai mountains (q. v.) are very important; they constitute the districts of Kolyvan, Zmeof, Tcherepanofsky, Smenofsky, Nikolaisky, Philipofsky, &c., with a yearly produce of upwards of 3000 marcs (1875 lbs. troy) of gold (in later times, more), 60,000 marcs (37,500 lbs. troy) of silver, and a considerable quantity of copper, iron and lead.—4. The mines of the Ural (q. v.) are dispersed, at different distances, around Ekaterinburg; those of Tourinsky produce about 20,000, and those of Goumechefsky 40,000 cwt. of copper yearly. The iron, which is obtained in the regions of Balgodat and Keskanar, amounts to more than 1,000,000 cwt. yearly. Near Berezov, 500 marcs (312 lbs. troy) of gold were formerly produced; but the quantity is now far more considerable.—5. The mines of the Vosges and the Schwarzwald (Black-forest). In the former, nothing but iron is found; in the latter, silver, at Badenweiler, Hochberg and Wolfach, amounting to 1800 marcs (1125 lbs. troy); at the first of these places, moreover, 800 cwt. of lead are obtained yearly, and at Wittichen, cobalt; besides iron in different places.—6. The mines of the Hartz: *a.* the silver, lead and copper mines, &c., of the Upper Hartz, in the environs of the mining towns of Clausthal, Zellerfeld, Lautenthal, Wildemann, Grund and Andreasberg; *b.* gold, silver and copper mines, near Goslar; *c.* copper mines in the neighborhood of Lauterberg; *d.* iron mines at Lauterberg, Walkenried, Elbingeroda and Blankenburg; *e.* silver, lead and iron mines, in the vicinity of Mägdesprung: annual produce, about 10 marcs (6¼ lbs. troy) of gold, 30,000 marcs (18,750 lbs. troy) of silver, 2000 cwt. of copper, 50,000 cwt. of lead, 30,000 cwt. of litharge, 200,000 cwt. of iron.—7. Mines in the eastern part of Germany: *a.* in the Saxon Erzgebirge, at the towns of Freiberg, Marienberg, Annaberg, Ehrenfriedersdorf, Johanngeorgenstadt, Schneeberg, annual yielding of 52,000 marcs (32,500 lbs. troy) of silver; at Altenberg, Geyer, Ehrenfriedersdorf, Zinnwald, annually 3—4000 cwt. of tin; at Schneeberg, annually 8000 cwt. of cobalt, 600 cwt. of copper, 80,000 of iron; *b.* in Bohemia: silver, at Joachimsthal, Mies, Przibram, &c., 13,800 marcs (8625 lbs. troy); tin, at Schakenwald, &c., 2000 cwt.; cobalt, 4000 cwt.; lead, 1800 cwt.; iron, 190,000 cwt.; *c.* in the Fichtelgebirge, principally iron, annually about 50,000 cwt.; *d.* in Moravia, at Iglau, &c., 4—5000 marcs (2500—3125 lbs. troy) of silver; *e.* in the Riesengebirge, at Jauer, Kupferberg, Reichenstein, 330 cwt. of copper, 560 cwt. of smalt; 1900 cwt. of arsenic, 1200 cwt. of sulphur, 20,000 cwt. of vitriol.—8. Mines in the middle and north-western parts of France. Those at Villefort, in the department of the Lozère, yield 2000 cwt. of lead, and 1600 marcs (1000 lbs. troy) of silver; at Poullaouen and Huelgoat, in Bretagne, 10,000 cwt. of lead, 2000 marcs (1250 lbs. troy) of silver.—9. Mines of Great Britain: iron, in Wales, 150,000 tons; Shropshire and Staffordshire, 180,000 tons; Yorkshire and Derbyshire, 50,000 tons; Scotland, 20,000 tons; total, 400,000 tons: copper, 10—11,000 tons: lead, in Northumberland, 12,000 tons: North Wales and Shropshire, 8000 tons; Yorkshire, 4500 tons; Derbyshire, 4000 tons; Scotland, Devon, Cornwall, South Wales, 3000 tons; total, 31,500 tons: tin, in Cornwall and Devon, 2800—5000 tons.—10. Mines of Scandinavia: Norway produces 1600 marcs (1000 lbs. troy) of silver; at Kongsberg, in 1768, 40,000 marcs (25,000 lbs. troy), 7200 cwt. of copper, 140,000 cwt. of iron, 4000 cwt. of smalt, 10,000 cwt. of alum; Sweden, 2—3000 marcs (1250—1875 lbs. troy) of silver, 18—20,000 cwt. of copper, 1,500,000 cwt. of iron.—11. Mines of the Pyrenees: these are insignificant, and iron only need be mentioned.—12. Mines of the Alps: they are not, by any means, proportioned to the immense masses of those mountains; the silver mines of Allemont, in Dauphiné, annually produce 2000 marcs (1250 lbs. troy); the iron mines of Allevard, in the department of the Isère, the lead and silver mines of Pesey, in Savoy, formerly produced 4000 cwt. of lead, and 2500 marcs (1562 lbs. troy) of silver annually; the iron mines of Cogna and Traverselle, in Piedmont, annually yield upwards of 200,000 cwt. of iron; the copper mines at Falkenstein and Schwatz, in the Tyrol, formerly were of importance; the gold mines, at Gastein and Muerwinkel, in Saltzburg, annually yield 118 marcs (74 lbs. troy) of gold; the iron mines in Saltzburg and the Tyrol, annually produce 60—70,000 cwt.; the iron mines, in Stiria, 450,000 cwt.; those in Carinthia, 260,000 cwt.; and those in Carniola, 100,000 cwt.; the copper mines at Schladming in Stiria, at Kirschdorf in Carinthia, at Agardo in the territory of Venice, and at Zamabor in Croatia, furnish copper containing silver; the zinc mines at Raibel in Carinthia, annually produce 3400 cwt.; the lead mines at Villach and Bleiberg, &c., about 50,000 cwt.; the quicksilver mines at Idria, about 1500 cwt.; the rock-salt mines, at Hallein, Berchtesgaden, Aussee, Ischel, Hallstadt, &c., upwards of 3,000,000 cwt. of salt.—12. Mines of the countries bordering on the Rhine, and of the Ardennes: copper is obtained from the mines of Rheinbreitenbach and Dillenburg, about 1200 cwt. yearly; lead and silver, from the mines of Holzapfel, Pfingstwiese, Læwenburg, Augstbach, Ehrenthal; of the former, 12,000 cwt.; of the latter, 3500 marcs (2187 lbs. troy); iron of an excellent quality, and in great quantity, is procured in the Stahlberg, in the environs of the town of Siegen, on the banks of the Lahn and Sayn, at Hohenkirchen in Hesse, on the Hundsrück, in the Eifel, in the territories of Luxemburg, &c.; calamine, in the vicinity of Limburg, in the Netherlands, 14—15,000 cwt. yearly; in the neighborhood of Aix-la-Chapelle, 30—40,000 cwt.; in the county of Mark, 2600 cwt.; lead, at Vedrin, not far from Namur, 4000 cwt., together with 700 marcs (437 lbs. troy) of silver.—13. Mines of various countries: the environs of Nertschinskoi in Siberia, are very rich in useful minerals, and yield 30—35,000 marcs (18,750—21,750 lbs. troy) of silver. The mineral wealth of Spain and Portugal is now almost exhausted; the quicksilver mines of Almaden formerly furnished 20,000 cwt.; the lead mines only are still productive, yielding annually more than 90,000 cwt. There are copper mines in Japan, China, Persia, Arabia, in Tartary, in the islands of the Indian Sea, in Barbary, Morocco, Abyssinia, &c.; tin is produced in China, Pegu, the peninsula Malacca, Sumatra, Banca, &c., in the latter country alone, 70,000 cwt.: zinc is said to be abundant in India; quicksilver, in China and Japan; Brazil furnishes 28,000 marcs (17,500 lbs. troy) of gold yearly, which is more than is obtained from any other country; Africa at least 7000 marcs (4375 lbs. troy), and Southern Asia at least 2000 marcs (1250 lbs. troy) yearly. The island of Elba contains a great deal of iron.—II. The mines in Flœtz mountains are highly important, above all, the coal mines—the principal wealth of England—this country alone furnishing 400,000,000 cwt.; France, 20,000,000; the Netherlands and the countries along the Rhine, 62,000,000; Silesia, 6,000,000; Saxony, 1,200,000; Austria, 680,000; Bavaria, 320,000; Hanover, with the rest of Germany, 6,000,000. The greater part of the iron that is procured in England, is from the coal-mountains. The same is the case in other countries, for instance in Silesia. The lead mines in the vicinity of Aix-la-Chapelle, which annually furnish 14—16,000 cwt. of lead, and upwards of 20,000 cwt. of lead ore, called *alquifou*, used for glazing earthen ware, are in Flœtz mountains; also the copper mines in the territory of Mannsfeld, at Frankenberg, Bieber and Riegelsdorf in Hesse, the former yielding 10,000 cwt. of copper and 8000 marcs (5000 lbs. troy) of silver; the important iron mines on the Stahlberg, in the Hessian seignory of Schmalkalden; the lead mines at Tarnowitz, in Upper Silesia, annually yielding 5300 cwt. of lead and 1500 marcs (937 lbs. troy) of silver; the calamine and zinc mines, in Upper Silesia and Poland, which annually afford 80,000 cwt. of calamine and 25,000 cwt. of zinc; the zinc mines of England and other countries, already mentioned; the rock-salt mines in the southern part of Germany, in Cheshire, at Vic in France, at Wielizka and Bochnia, the latter affording almost 2,000,000 cwt.—III. Of no less importance is the mineral wealth of the alluvial regions. Platina, the greater part of gold, a considerable quantity of tin and iron, also diamonds and most of the other precious stones, are concealed in sand, clay, &c.,and obtained by washing.(q.v.) (For the mineral wealth of the U. States, see that article; also the articles on the separate states, particularly *Illinois*,*Michigan*,and *Missouri*, for lead, and *Pennsylvania* for coal, &c.)

Mining. The science of mining includes the scientific knowledge requisite for opening and working mines, as well as for preparing ores for use. It requires a knowledge of mineralogy and geology (q. v.), and of the different processes requisite in mine working, for searching after useful minerals, bringing them to the surface, mechanically and chemically separating them, and removing all difficulties that occur in the course of the work, the sinking of shafts, propping up the superincumbent earth, so as to give security to the miners, &c. This security is obtained partly by the form of the pits, by propping with stones, by suffering pillars of stone to remain standing, by supports of timber or masonry. Mining also includes the building of machinery, the preparation of the ore for smelting, or the mechanical separation of the useless minerals from the useful, as well as of the different kinds of the latter from each other. The preparation of the ore consists, in the first place, in breaking asunder the larger pieces, and then purifying them, by means of water, from the earth which adheres to them; in the separation of the coarser substances from the finer, by means of a sieve, that moves up and down in water; in the breaking of the ore in stamping-mills, which consist either of hammers or iron cylinders, driven up and down, and in the separation of the finely interspersed metal from the stone or earth, with which it is surrounded, by washing the broken ore in troughs or on inclined tables crossed by a current of water; the heavier ore remains, while the lighter earthy and stony substances are carried away by the water. Mining also includes the final purification of the ore, by means of acids, by amalgamation, by fusion, &c.

Mining Academies. In Germany, where the science of mining had its origin, academies exist, in which young men are instructed in the science of mining, and educated as superintendents of mines, founderies or salt-works. These institutions have been imitated in other countries. Such academies exist at Freiberg in Saxony, at Schemnitz in Hungary, at Petersburg, at Paris, at St. Etienne, &c.

Mineral Caoutchouc. (See *Bitumen.*)

Mineralogy, or the Natural History of the Mineral Kingdom, considered as a pure science, is of very recent date. The observations made at first related simply to the usefulness of minerals to the purposes of society, and it was not before the lapse of many ages that they came to be investigated on account of their great variety and the beautiful arrangements of which they are susceptible. The ορυκτα and μεταλλευτα of Aristotle evince no valuable observations on the part of that philosopher concerning minerals, and are chiefly mentioned by him because he believed the former to be derived from the earth, and the latter from water. The allusions to mineral substances found in the writings of Theophrastus, Pliny, Dioscorides and Galen are of more interest to the antiquarian and philologist than to the natural historian. No attempt to classify these bodies was made previous to the introduction of alchemy into Europe by the Arabians; and to Avicenna belongs the merit of the first arrangement. He divided minerals into stones, metals, sulphureous fossils and salts—a division which was generally adopted by the chemists of those times, though opposed by the naturalists, who confined their investigations to the characters derived from the external forms of minerals and their supposed medicinal virtues, but without deriving from them any just grounds of classification. According to one or the other of these vicious methods was the science of mineralogy treated, down to the 16th century, its cultivators either implicitly adopting the ideas of the chemists, or announcing themselves as little better than mere empirical collectors of curiosities. Agricola (who was born in 1490, and died in 1555) directed his views to the uniting these two classes, though he inclined more strongly to the side of the scholiasts than to that of the chemists. All minerals (*corpora subterranea*) are divided by him into simple, or such as consist of homogeneous particles, and compounded, or such as are formed of heterogeneous parts, taken in a mineralogical acceptation of the terms. The minerals belonging to the former of these divisions are found in four different forms, viz. 1. *terra*; 2. *succus concretus*; 3. *lapis*; 4. *metallum*. *Terra* he defines as *corpus fossile quod potest manu subigi, cum fuerit aspersum humore, aut ex quo cum fuerit madefactum, fit lutum*. These earths he divides partly according to some external characters, partly after their localities, in cases where their names are derived from the countries or places in which they are found:—*Succus concretus est corpus fossile siccum et subdurum, quod aquis aspersum aut non mollitur, sed liquescit, aut, si mollitur, multum vel pinguitudine differt a terra, vel materia ex qua constat.* The fossils of this class Agricola divided into *macra* and *pinguia.* The former consists of a juice, partly mixed with earth (*sal nitrum*), partly with metal (*chrysocolla, ærugo, ferrugo, cæruleum*), partly mixed both with earth and metal (*atramentum, sutorium, alumen,* &c.); to the latter he refers sulphur, bitumen, sandarach, and auripigmentum. The stones are the third class of Agricola's system. *Lapis est corpus fossile siccum et durum, quod vel aqua longinquo tempore vix mollit, ignis vehemens redigit in pulverem; vel non mollit aqua, sed maximo ignis liquescit calore.* The stones are subdivided into *lapis, gemma, marmor,* and *saxum.* His definition of metals, being his fourth class, is *corpus fossile natura vel liquidum vel durum quidem, sed quod ignis liquescit calore.* He enumerates 10 metals. The last class of Agricola's system comprehends mixed and compound fossils:—1. Mixtures of stones and juices (*succi*); 2. of earth and metal; 3. of stone and metal; 4. of juice, stone and metal. To the second and third divisions he refers the various ores. (A translation of Agricola's system into German was published, with considerable additions, by Lehmann, at Freyberg, in 1809.) Most of the writers on mineralogy who succeeded Agricola until the middle of the following century adopted his system, occasionally making some trifling alterations, in conformity to the slow progress of chemistry. Becher (whose *Physica Subterranea* was published in 1667) made the first important innovation upon the classification of Agricola. He considered water and earth as the remote, and vitreous, inflammable and mineral earths (*sal, sulphur, mercurius*) as the proximate constituent parts of all minerals, which he accordingly arranged under three classes; the first comprehending those stones in which the vitreous earth constitutes the principal ingredient; the second and third class containing the substances in which the two remaining earths predominate. Bromelius, who published a book entitled *Catalogus Rerum Curiosarum* (Gothenburg, 1698), referred sulphur and the bituminous substances to the same class, which he called *sulphurea* and *pinguia.* Magnus von Bromel, a Swede, who was the pupil of Boerhaave, published a system of mineralogy—*Inledring til Kunscah om Mineralier,* &c. (Stockholm, 1730), in which he not only availed himself of all the improvements made by his predecessors, but also proposed a new chemical division of stony substances into such as are refractory (*apyri*), or calcinable, or vitrescible in the fire, to which were added the figured stones (*figurati*). After Von Bromel, the great Swedish reformer in natural history appeared, whose admirable views respecting the philosophy of the natural sciences have contributed more to the perfection of our science than the labors of all who preceded him; and yet Linnæus appears to have possessed but very little knowledge of minerals, but the complete success with which he applied the method of natural history to the vegetable kingdom rendered it easy for subsequent naturalists to apply his principles to the mineral kingdom. Linnæus, too, has the merit of calling the attention of naturalists to the important characters derived from the diversity of crystallization. Mineralogy, however, remained, from the time of Linnæus to that of Werner, almost exclusively in the hands of chemists, who appear to have regarded the science in no other light than as an appendage of chemistry, and who, while they degraded all regard to the natural properties of minerals, believed that chemical knowledge was alone capable of affording the basis of the classification, nomenclature and diagnosis of the mineral kingdom. To this class of the cultivators of mineralogy belonged Henkel, Pott, Wallerius and Cronstedt. In 1774, Werner published his work On the external Properties of Minerals (*Von den äussern Kennzeichen der Fossilien*)—a work of great merit and value at that juncture, as it served to call the attention of naturalists to the only correct method of arriving at a knowledge of this department of nature. The external characters of minerals had before been almost wholly neglected; in this work they were described with uncommon minuteness, though they were employed by him in his system without a just regard to their relative importance. The greatest defect, however, in the views of Werner arose from his reluctance to ascertain the properties of minerals through the aid of instruments. He scarcely availed himself of any other means than such as were derived directly through the eye, the hand, and the tongue. Hence those characters, depending upon the value of angles and different degrees of hardness and specific gravity, and which are now acknowledged to be of the highest value in mineralogy, were turned to comparatively little account. For a knowledge of Werner's system of mineralogy, we are indebted to his translation of Cronstedt's mineralogy (to which he subjoined notes), to his catalogue of the mineral collection of M. Pabst von Ohain, and to several memoirs in the *Bergmannische Journal*. In addition to these sources, several expositions of his system have been made by his pupils, the best of which is that published by professor Jameson. The fundamental principle laid down by Werner in the classification of minerals, is their *natural affinity*, which he allows to be founded on the chemical nature of their component parts. These he distinguishes into essential and accidental component parts, of the former of which only does he take notice in his arrangement. The essential component parts are subdivided into predominant and characteristic ones, and generally the characteristic happen to be, at the same time, the predominant constituents. His classes are four, which are founded on what he calls the *fundamental constituent parts*, viz. the earthy, saline, inflammable and metallic, each class being named after that fundamental constituent part which predominates in and characterizes it. Thus he derives his classes of earths, salts, inflammables and metals. These classes are subdivided into genera, which are founded upon the variety in the component parts of the minerals comprehended in each class, there being as many genera as there are predominating, or, at least, characteristic constituent parts discovered in their mixture. But neither Werner nor his pupils have been very strict in adhering to this rule for the formation of the genera, these, as well as the species, having more frequently been established by them upon the natural instead of the chemical properties. Werner's system was essentially deficient in respect to unity, in consequence of the regard which he allowed to the chemical relations of minerals, and, like those which preceded his time, it was rather a mixture of chemistry and mineralogy than the representation of a pure science,—an objection which applies with scarcely undiminished force to the next great system, which was presented to the mineralogical world by Haüy at the commencement of the present century. Mineralogy, however, is under immense obligations to the abbé Haüy for his researches respecting the geometrical character of minerals. His labors, connected with crystallography, gave an entirely new aspect to the science, and communicated to its results a degree of that precision and certainty which belong to geometry. Still his want of knowledge of the principles of natural history prevented him from remedying the faults of his predecessors. His system, like that of Werner, is founded upon two sciences, and consequently wants the order, the connexion and consistency of parts which belong to the idea of a science. He defines a species in mineralogy to be "an assemblage of bodies,the integrant molecules of which are similar to each other, and have the same composition." The following outline of Haüy's system is taken from his *Traité de Minéralogie* (Paris, 1822):—*Class I.* Free acids. *Class II.* Metallic substances, but destitute of a metallic appearance. This class contains eight genera, viz. lime, barytes, strontites, magnesia, alumine, potash, soda, and ammonia; and to it is subjoined an appendix, consisting of one order characterized by the presence of silex in all its compounds, and which embraces a larger number of species than the whole class to which it is appended. *Class III.* True metallic substances. This class contains 18 genera, characterized by the different metals. *Class IV.* Unmetallic, combustible substances.—In proceeding to notice the labors of professor Mohs, we come to an era in the history of mineralogical science. This eminent philosopher, no less distinguished as a cultivator of the mathematics than of mineralogy, published at Dresden, in 1822, his *Grundriss der Mineralogie*, a work replete with new and philosophical views of our science. His first object is to fix the exact limits of mineralogy, and to exclude from it a variety of foreign matter belonging to other sciences, which had before rendered it a heterogeneous mass of information, incapable of derivation from constant principles by any regular process of reasoning. He then proceeds to develope the science under the following heads:—1. terminology; 2. theory of the system; 3. nomenclature; 4. characteristic; 5. physiography. Under the first of these he explains those properties of minerals which manifest no change, either in the properties themselves, or in the substances which possess them during their observation or examination, and which properties alone form the object of consideration in mineralogy, viewed as a pure science. They had before been treated of under the denomination of external or physical characters, though, from the stress which had been laid upon chemical characters, the greater part of them had been but very imperfectly determined; and this part of the subject is called *terminology*, because, besides the general investigation of those properties, it embraces also the explanations of the expressions which, for the sake of precision, are used in a determinate and peculiar sense. Decomposed and imperfectly formed minerals, or those which are destitute of several of the properties peculiar to these bodies, are not regarded as suitable objects for the consideration of the science; in which respect they are treated like mutilated, defective or monstrous plants or animals in botany and zöology. And in order to study the productions of the mineral kingdom in their purest state, Mohs takes notice of those properties which belong to minerals occurring in single individuals, separately from those which belong to several individuals of the same quality, formed in a common space, one being the support of, or at least contiguous to, the other,—of the former of which only does he make use in the determination of the species, while he pays no attention to the properties of minerals composed of individuals belonging to different species (mixed minerals), these last falling within the province of geology. This is a distinction of the highest importance and utility, in rendering all the departments of mineralogy mutually consistent, though one which had been almost wholly disregarded by all his predecessors. According to this system, the individual of the mineral kingdom, or the simple mineral, is the sole object of mineralogy, and the natural properties of the simple mineral are the only ones to which, in this science, we ought to direct our attention. It will be obvious, therefore, that all information thus derived must be of one kind, and consequently its aggregate conformable to the logical idea of a science. Mohs has particularly distinguished himself in treating of that part of terminology which relates to the regular forms of minerals. The fundamental forms, from which he derives all the occurring forms among minerals, are but four in number, viz. the scalene four-sided pyramid, the isosceles four-sided pyramid, the rhombohedron, and the hexahedron; and the geometrical constructions by which he illustrates the simple forms capable of appearing in the individuals of one and the same species, or which may produce combinations with one another, entitle him to the first rank as a crystallographer. The natural-historical properties of compound minerals are treated of in the most precise manner, the previous neglect of which had involved the science in numerous important errors. But one of the greatest improvements under this head was the establishment of an accurate scale for the degrees of hardness. This was effected by choosing a certain number of suitable minerals, of which every preceding one is scratched by that which follows it, while the former does not scratch the latter; and the degrees of hardness are expressed by means of numbers prefixed to the different individuals of the scale. Thus

1 expresses the hardness of talc;
2 . . . . gypsum;
3 . . . . calcareous spar;
4 . . . . fluor spar;
5 . . . . apatite;
6 . . . . feldspar;
7 . . . . quartz;
8 . . . . topaz;
9 . . . . corundum;
10 . . . . diamond.

The second general head under which mineralogy is developed, according to Mohs, is the *theory* of the system, which contains the reasoning or philosophical part of the science. It determines the idea of the species; fixes the principle of classification; and upon the idea of the species it founds, according to this principle, the ideas of the genus, the order, and the class; and lastly, by applying all these ideas to nature, the outline of the system thus constructed is furnished with its contents, in conformity to our knowledge of the productions of nature, as obtained from immediate inspection. The idea of the species is here, for the first time, scientifically obtained, and is founded upon all the series of natural properties without the introduction of any considerations foreign to natural history, which had proved the source of the contamination that the science had before suffered from heterogeneous principles. The principle of classification consists in the resemblance of natural properties, since in every science the classification must rest upon such relations as are objects of the science. On the different degrees of resemblance are founded the higher ideas of the theory of the system. An assemblage of species connected by the highest degree of natural-historical resemblance is termed a *genus;* an assemblage of similar genera an *order;* of similar orders a *class;* and the collection of these ideas conformably to the degree of their generality, and applied to the productions of the mineral king dom, constitutes the *mineral system*. The mineral system is therefore the systematic exhibition of the natural resemblance as observable in the mineral kingdom, or of the connexion established by nature among its products by means of this resemblance. For this reason it is called the *natural system*, because, in fact, it expresses nature in this very remarkable relation. The third idea of the science, as developed by Mohs, is its nomenclature, which relates to the connexion of its unities with certain words, through which the ideas and representations may be so expressed as to be conveniently applied in writing and speaking. Nothing is better calculated to furnish us with an idea of the situation in which mineralogy had before been placed, than the consideration of its former nomenclature, and of the method employed in giving new names. Those were regarded as the best which had no signification, as is obvious from the frequency with which designations were adopted derived from colors, persons, localities, and other accidental circumstances; and, as respects those names which referred to the connexion of the different minerals in regard to their resemblance, these were still more objectionable, since the connexion expressed by them was either entirely incorrect, or without reference to the system in which the names were applied. The nomenclature therefore required to be wholly remodelled, none deserving of the name having before existed,—the reason of which appears to have been that mineralogy had not before been treated as a science, but as an aggregate of various kinds of information, a sort of mixture which would admit every kind of knowledge to be introduced, and in which nothing could be placed wrong, because in such a disposition there could be no order. The order is the highest idea expressed in the nomenclature of Mohs, and in the selection of the names of the orders he has invented but two which are entirely new, having employed as many designations from ancient mineralogy as would answer the purpose. The names receive their signification in agreement with the ideas of the orders; thus *pyrites* embraces the minerals hitherto called by that name. A mineral which may with propriety bear the name of a *metal* must really be a metal, or it must present the properties peculiar to metals. Mica signifies a mineral which may be cleaved with facility into thin, shining laminæ; the order mica therefore contains only such species as present cleavage in a high degree of perfection. The name of the genus is a compound name, formed by connecting another word with the name of the order. Thus we have *lead glance*, *augite spar*, *iron pyrites*. The generic name also refers to the properties of the genus, and expresses, as much as possible, some striking feature of its resemblance with other bodies. Such is the name *garnet-blende*. The genus designated by this name belongs to the order *blende*; the individuals which it contains very often look like garnet. The denomination of the species is produced by the nearer restriction of the generic name by an adjective. The adjective with which the species is designated within its genus is taken from its natural properties, and in general refers to one of those properties of the species which is most useful in distinguishing it from other species of the same genus; hence the systems of crystallization and the relation of cleavage are the most frequently employed,—examples of which are hexahedral, prismatic, rhombohedral iron pyrites; rhombohedral, octahedral, dodecahedral, prismatic iron ore, &c.—The great advantage of the systematic nomenclature is, that the names produce an image of the objects to which they refer, which the trivial nomenclature can never do; for example, if we hear the name *peritomous titanium ore*, and have only an idea of the order ore, this at once will produce a general image of the species, which will be still more restricted if we have some idea of the genus titanium ore; but, on the other hand, if we hear the name *rutile*, and do not know the species itself to which it belongs, we never can imagine any thing like a representation of the object, though, for the rest, our knowledge of mineralogy may be very extensive. The terminology, the theory of the system, and the nomenclature, form the constituents of theoretical mineralogy. Practice, or the application of it to nature, requires the characteristic, the object of which is, to furnish us with the peculiar terms or marks, by which we are able to distinguish objects from each other, so far as they are comprehended in the ideas established by the theory of the system. In order to find the name of a mineral when its properties are ascertained, we make use of the characteristic, which consists of an assemblage of general ideas, corresponding to the system, and expressed by single distinctive marks. With these ideas are connected the names and denominations as far as the nomenclature extends and requires, not above the order, nor below the species; and they are by degrees transferred to the individual, in proportion as it enters within the compass of those general ideas. The characteristic is only useful when we have the mineral in our hands, and is not to be studied to obtain a knowledge of the contents of the mineral kingdom, since the characters of its classes, orders, genera and species, consisting of single marks or properties, are not calculated to produce representations or images of the objects to which they refer. *Physiography*, the last head of scientific mineralogy, consists of the assemblage of the general descriptions, and is intended to produce a distinct image of minerals. We cannot, by its assistance, find the place of a given mineral in the system, or, in other words, recognise it; for it is independent of that connexion, among minerals, upon which the system is founded. Mohs was the first writer who drew the line between the determinative and the descriptive parts of mineralogy—a distinction which is of the utmost consequence to the perfection of the science. The foregoing heads or departments of mineralogy are all equally important and indispensable for conferring upon the science the character of a whole, though, in the application of the science, the parts are used separately, and, in a measure, independently of each other, according to the object in view. Those who wish to determine an individual occurring in nature, will find the characteristic the most important department, for neither of the others can be of the least use to them; while those who intend to arrive at a general conception of the species from knowing its name, or one of the individuals belonging to it, will find their views forwarded only by the physiography; for neither the characteristic nor any other department of mineralogy, contains any information answering the purpose in view. Mineralogy, thus developed, fulfils perfectly the demands which natural history makes of its several departments. But it enables us to answer no question which lies beyond the limits of natural history. Nobody will ever be able to infer from the mere natural-historical consideration of a mineral, any thing with regard to its chemical, geological, or economical properties. The natural history system has its provinces exactly determined, within which it serves every purpose, but admits of no application without; and these commendable properties are conferred upon mineralogy, as the natural history of the mineral kingdom, solely by making it correspond to the philosophical idea of a science. It contains merely natural-historical information; i. e. such as proceeds from a comparison of natural-historical properties, and all the rest is foreign to it. The developement of the whole, in its single departments, is in itself systematical; and what it contains of real systems, the systems of crystallization, and the mineral system itself, really deserve that name; because they are the result of the application of one single idea to the whole compass of a certain kind of information. The science itself forms a whole, being intimately connected in all its departments, and strictly separated from all other sciences, which is a necessary consequence of a systematic mode of treatment. The method employed is so simple, that, on that very account, it is immutable; nor can there be any doubt, that other methods, compounded of different principles, from the want of consistency prevailing in their different departments, will finally also be reduced to this method We conclude our abstract of the system of Mohs, by presenting the reader a list of his genera, as represented in the translation of the *Grundriss der Mineralogie*, by Haidinger (Edinburgh, 1825).

CLASS I.

ORDER 1.—*Gas.*

Genera. 1. Hydrogen. 2. Atmospheric air.

ORDER 2.—*Water.*

Genus. 1. Atmospheric water.

ORDER 3.—*Acid.*

Genera. 1. Carbonic acid. 2. Muriatic acid. 3. Sulphuric acid. 4. Boracic acid. 5. Arsenic acid.

ORDER 4.—*Salt.*

Genera. 1. Natron salt. 2. Glauber salt. 3. Nitre salt. 4. Rock salt. 5. Ammoniac salt. 6. Vitriol salt. 7. Epsom salt. 8. Alum salt. 9. Borax salt. 10. Brythine salt.

CLASS II.

ORDER 1.—*Haloide.*

Genera. 1. Gypsum haloide. 2. Cryone haloide. 3. Alum haloide. 4. Fluor haloide. 5. Calc haloide.

ORDER 2.—*Baryte.*

Genera. 1. Parachrose baryte. 2. Zinc baryte. 3. Scheelium baryte. 4. Hal baryte. 5. Lead baryte.

ORDER 3.—*Kerate.*

Genus. 1. Pearl kerate.

ORDER 4.—*Malachite.*

Genera. 1. Staphyline malachite. 2. Lirocone malachite. 3. Olive malachite. 4. Azure malachite. 5. Emerald malachite. 6. Habroneme malachite.

ORDER 5.—*Mica.*

Genera. 1. Euchlore mica. 2. Cobalt mica. 3. Iron mica. 4. Graphite mica. 5. Talc mica. 6. Pearl mica.

ORDER 6.—*Spar.*

Genera. 1. Schiller spar. 2. Disthene spar. 3. Triphane spar. 4. Dystome spar. 5. Kouphone spar. 6. Petaline spar. 7. Feld spar. 8. Augite spar. 9. Azure spar.

ORDER 7.—*Gem.*

Genera. 1. Andalusite. 2. Corundum. 3. Diamond. 4. Topaz. 5. Emerald. 6. Quartz. 7. Aximite. 8. Chrysolite. 9. Boracite. 10. Tourmaline. 11. Garnet. 12. Zircon. 13. Gadolinite.

ORDER 8.—*Ore.*

Genera. 1. Titanium ore. 2. Zinc ore. 3. Copper ore. 4. Tin ore. 5. Scheelium ore. 6. Tantalum ore. 7. Uranium ore. 8. Cerium ore. 9. Chrome ore. 10. Iron ore. 11. Manganese ore.

ORDER 9.—*Metal.*

Genera. 1. Arsenic. 2. Tellurium. 3. Antimony. 4. Bismuth. 5. Mercury. 6. Silver. 7. Gold. 8. Platina. 9. Iron. 10. Copper.

ORDER 10.—*Pyrites.*

Genera. 1. Nickel pyrites. 2. Arsenic pyrites. 3. Cobalt pyrites. 4. Iron pyrites. 5. Copper pyrites.

ORDER 11.—*Glance.*

Genera. 1. Copper glance. 2. Silver glance. 3. Lead glance. 4. Tellurium glance. 5. Molybdenum glance. 6. Bismuth glance. 7. Antimony glance. 8. Melane glance.

ORDER 12.—*Blende.*

Genera. 1. Glance blende. 2. Garnet blende. 3. Purple blende. 4. Ruby blende.

ORDER 13.—*Sulphur.*

Genus. 1. Sulphur.

CLASS III.

ORDER 1.—*Resin.*

Genus. 1. Melichrone resin.

ORDER 2.—*Coal.*

Genus. 1. Mineral coal.

Among the works on mineralogy, the following are worthy of notice: *Traité de Mineralogie, par A. Brongniart* (Paris, 1807); a Familiar Introduction to the Study of Crystallography, by Henry James Brooke (London, 1823); an Elementary Introduction to the Knowledge of Mineralogy, &c., by William Phillips (London, 1823); *Handbuch der Mineralogie, von C. A. S. Hoffmann* (Frieberg, 1811, and continued by A. Breithaupt); Mohs's System of Mineralogy, translated by William Haidinger (Edinburgh, 1825); *Traité de Crystallographie, par M. l'Abbé Haüy* (Paris, 1822); *Traité de Minéralogie, par M. l'Abbé Haüy* (Paris, 1822); *Handbuch der Oryktognosie, von Karl Cäsar von Leonhard* (Heidelberg, 1826); Brewster's Treatise on Mineralogy (Edinburgh, 1827); *Die Mineralogie der A. Hartmann* (Ilmenau, 1829). The study of minerals has received considerable attention during the last twenty years, in the U. States, though, for the most part, that attention has been devoted to the discovery of localities and the formation of cabinets. Already we have discovered nearly all the species found in other quarters of the globe, as may be noticed by consulting the different articles in the department of mineralogy in this work; and several entirely new species have been added to the science by American mineralogists. The only considerable work upon the science which has as yet appeared in the U. States is that of professor Cleaveland, and which was founded, for the most part, on the systems of Brongniart and Haüy. It has passed through two editions, and its author is now understood to be preparing an improved edition for the press.

MINERAL WATERS are those waters which contain such a proportion of foreign matter as to render them unfit for common use, and give them a sensible flavor and a specific action upon the animal economy. They are very various, both in their composition and temperature, and, of course, in their effect upon the system; they are generally, however, so far impregnated with acid or saline bodies as to derive from them their peculiarities, and are commonly divided into four classes: acidulous or carbonated, saline, chalybeate or ferruginous, and sulphureous. In regard to temperature, they are also divided into warm, or thermal, and cold. The substances which have been found in mineral waters are extremely numerous, but those which most frequently occur are oxygen, nitrogen, carbon and sulphur, in different combinations; lime, iron, magnesia, &c. Mineral waters are also divided into artificial and natural, the former being produced in the laboratories of the chemists, and sometimes merely imitations of the natural waters by a combination of the same ingredients, and sometimes composed of different ingredients, or of the same in different proportions, in such a manner as to form compounds not known to exist in nature. The saline springs consist, in general, of salts of soda and lime, or of magnesia and lime, with carbonic acid and oxide of iron. The principal are those of Pyrmont, Sedlitz, Epsom, &c. The ferruginous waters have a decided styptic taste, and are turned black by an infusion of gall-nuts. The iron is sometimes in the state of an oxide, held in solution by carbonic acid; sometimes exists as a sulphate, and sometimes both as a sulphate and carbonate; the waters of Vichy, Spa, Forges, Passy, Cheltenham, Tunbridge, Bedford, Pittsburgh, Yellow-Springs, in Ohio, Virginia, Pennsylvania, &c., are among them. The acidulous waters are characterized by an acid taste, and by the disengagement of fixed air. They contain five or six times their volume of carbonic acid gas; the salts which they contain are muriates and carbonates of lime and magnesia, carbonate and sulphate of iron, &c.; the waters of Bath, Buxton, Bristol, Vichy, Seltz, New Lebanon, &c., are acidulous. The sulphureous waters are easily recognised by their disagreeable smell, their property of tarnishing silver and copper, &c.; the springs at Saratoga and Ballston, Harrowgate, Moffat, Aix-la-Chapelle, Aix, and numerous others, are of this class.

Minerva (called by the Greeks *Athene*, *Pallas Athene*); one of the principal deities of the heathen Olympus, whose origin many mythologists derive from Egypt. According to the fable, Jupiter (q. v.), having obtained the sovereignty of the skies by his victory over the Titans (q. v.), chose Metis (q. v.), daughter of Ocean, for his wife. An oracle of Gæa and Uranus had, however, predicted that Metis would first bear him a daughter, and then a son, who should deprive him of the sovereignty. To avoid this, Jupiter endeavored, by wiles and flattery, to get possession of her person, and then swallowed her with her yet unborn daughter. When the period of her delivery arrived, Jupiter experienced a sharp pain in his head, and, having caused Vulcan to split open his skull, was astonished at the sight of a virgin in complete armor, who danced about with a warlike enthusiasm, brandishing her spear, and clashing her arms, as if on the point of attacking an enemy. In her character of a wise and prudent warrior, she was contrasted with the fierce, furious and bloodthirsty Mars (q. v.), and made her first appearance in the battles of the gods. In the wars of the giants, she slew Pallas and Enceladus. In the wars of mortals, she aids and protects heroes. She conducted Hercules to Olympus, instructed Bellerophon (see *Hipponoüs*) how to tame Pegasus, and conquer the Chimæra, accompanied Perseus on his expedition against the Gorgons, conferred immortality on Tydeus, honored Achilles, accompanied Ulysses, protected his wife, and guided his son Telemachus under the figure of Mentor. She also favored the inventors of warlike instruments, built the Argo, and taught Epeus to construct the wooden horse, by means of which Troy was captured. She is likewise represented as the patroness of the arts of peace; and, as a virgin, is distinguished for her skill in all the employments, in which, in the heroic age, the daughters of kings occupied themselves. The loom, the spindle, the embroidering needle, are her attributes; and, as the wives of the heroes prepared the garments of their households, so she made the dresses of the goddesses; hence her epithet *Ergane*. Skilful artists were, therefore, under her protection, though she would not tolerate any marks of pride. (See *Arachne*.) All the peaceful arts which display an active and inventive spirit, found a patron in her. The sculptor, the architect and the painter, as well as the philosopher, the orator and the poet, considered her their tutelary deity. As bodily health is necessary to the successful exertion of the inventive powers of the mind, she is also represented among the healing gods, and in this character is called *Pæonia*. In all these representations she is the symbol of the thinking faculty, the goddess of wisdom, science, and art; the latter, however, only in so far as invention and thought are comprehended. Athens, the city of the arts and sciences, was her favorite residence. She is also styled the inventress of the flute; but having seen, in a fountain, how much the playing upon that instrument distorted her face, she threw it into the water, with maledictions on the person who should take it out. Marsyas (q. v.) suffered the effects of this malediction. Despising love, she consecrated herself to perpetual virginity; and the unhappy wretch, who directed towards her a glance of desire, suffered the severest penalties for his rashness. Tiresias (q. v.), who surprised her in the bath, was struck blind.—The arts have embodied this conception of pure reason in the images of the goddess. A manly gravity, and an air of reflection, is united with female beauty in her features. As a warrior, she is represented completely armed, her head covered with a gold helmet, from which streams a crest of horse-hair, her hand bearing her lance, and her body mailed with the armor of her father. As the goddess of peaceful arts, she appears in the dress of a Grecian matron. To her attributes belong, also, the Ægis, the Gorgon's head, the round Argive buckler, and the owl, as the symbol of vigilance (on coins, the cock). As the preserver of health, she is also represented as feeding a dragon, and the olive-branch is a symbol of the peaceful commerce, which is rendered prosperous through her favor. An Athenian tradition relates that Neptune and Minerva (Athene) once contended which should give the name to their city; the gods, to decide the dispute, declared that it should be called from the one who should produce the most useful gift for the human race. Neptune, therefore, struck the ground with his trident, and the war-horse sprang forth; Minerva threw her spear, and from the spot where it fell sprouted forth the peaceful olive-tree. Her present was determined to be the most salutary, and the city received her name. All Attica, but particularly Athens, was sacred to her, and she had numerous temples there. (See *Parthenon.*) Her most brilliant festival at Athens was the Panathenæa. Another festival was the solemn washing of her statues at Athens, and more particularly at Argos, which was done yearly in running water, by the hands of virgins. The Romans worshipped her at first only as the goddess of war (Bellona); but she afterwards became one of the guardian gods of Rome. The principal temple in the capitol was dedicated to her, in common with Jupiter and Juno, and a yearly festival was observed in honor of her, which continued five days (*Quinquatria*).

Mingotti, Catharine; an eminent singer, born at Naples in 1728, of German parents. After the death of her father, who was in the Austrian military service, Catharine entered an Ursuline convent. The music made such an impression upon her, that she implored the abbess, with tears, to allow her to receive musical instruction, that she might be able to accompany the choir: her request was granted. At the age of fourteen she returned to her mother, and some years after married Mingotti, a Venetian, who had the direction of the opera at Dresden. On her first appearance in Dresden, she attracted general admiration, and Porpora (q. v.), who was then in the king's employ, procured her an engagement at the theatre. Her reputation soon extended through Europe, and she was engaged to sing at the grand opera in Naples, where she was received with undivided applause. On her return to Dresden, in 1748, Hasse was at the head of the chapel, and endeavored to place difficulties in her way, which she escaped with such success as to silence her enemies, and even Faustina. In 1751, she went to Spain, under the direction of Farinelli, visited Paris and London in 1754, and afterwards the different cities of Italy, but always considered Dresden as her home during the life of Augustus. After his death, she resided at Munich. She died in 1807. Mingotti spoke German, French and Italian, with elegance, Spanish and English with ease, and understood Latin. Her style of singing was grand and dramatic, and such as discovered her to be a perfect mistress of her art. She was a judicious actress, her intelligence extending to the poetry, decorations, and every part of the drama.

Mingrelia; an Asiatic province of Russia, bounded north by the Caucasus, which separates it from Circassia, west by the Black sea, south by Guria, and east by Imeretia. It is in general mountainous, with a fertile soil, producing excellent fruits. Wine, honey, silk and women are the chief articles of commerce. The population is composed of about 14,000 families—Georgians, Armenians, Tartars and Jews. The Greek church is the predominant religion. The inhabitants are divided into three distinct castes, the Dchinandi, or that of princes, the Sskkour, or nobles, and the Moniali, or commons: the last are the cultivators of the soil. Mingrelia is governed by a prince, called the *Dadian*, who, in 1803, declared himself the vassal of Russia. In 1813, Persia renounced all claims of sovereignty over it, in favor of Russia.

Minho, or, in Spanish, *Miño* (*Minius*), a river of Spain and Portugal, which rises near Mondoñedo, among the mountains in the north of Galicia, crosses that province nearly from north to south, till it arrives at the frontiers of Portugal, where it takes a western direction, and forms the boundary between the two kingdoms. It flows into the Atlantic at Guardia. It is only navigable to a small distance for boats, on account of the sand-banks. It gives its name to the northernmost province of Portugal, called also *Entre Douro e Minho*, remarkable for its fertility and delightful climate, of which Braga is the capital, and Oporto (q. v.) the principal port. (See *Portugal.*)

Miniature Painting; that branch of painting, in water colors, in which the colors are put on by the mere point of the brush. It differs from other kinds of painting in being much finer, and therefore must be looked at near, so that it is used to represent subjects on a small scale, commonly on vellum or ivory. Hence the name *miniature painting*, for the smallest kind. The ground of the vellum or ivory is used for the highest lights, and some artists use no white coloring matter at all, supplying its place entirely by this ground. The best colors are those which have the least body, as carmine, ultramarine, lac, &c., which are dissolved in water, and then separated and dried. Miniature painting requires much time on account of the paints of which it consists, which must be delicately put on, so near each other that they appear as one continued color. As early as the ninth and tenth centuries, miniature pictures are found as ornaments of manuscripts in Italy, France and Germany.—See Rive's *Essai sur l'Art de vérifier l'Age des Miniatures peintes dans les Manuscrits* (Paris, 1782). In general this kind of painting was an occupation of the monks; and as the art was called *illuminare*, so the artists received the names *illuminatores*, or *miniatores*, because they used for the ornaments of the manuscripts the red color, *minium*, more than any other; hence the name *miniature painting*. This species of painting flourished particularly in the fourteenth century, under Charles V in France, and reached still greater perfection under Charles VIII and Louis XII, but sunk after the invention of printing, and of paper, and the rise of the art of engraving. In modern times, it has been employed chiefly for portrait painting. Among the distinguished miniature painters deceased are Mengs, Chodowiecki, Füger, Westermann, Nixon and Shelly. Augustin and Isabey (q. v.) are now the first miniature painters in Paris.

Minim; a character or note, equal in duration to the sixteenth part of a large, one eighth of a long, one fourth of a breve, and one half of a semibreve.

Minim Friars (from *minimi*, Latin, *least*); brethren of St. Franciscus a Paula (whence they are called also *Paulini*, or *Paulani*), an order instituted in the middle of the fifteenth century, who have established convents in most European countries since 1493. They owe their reputation of particular sanctity to their rigorous fasting, as they are not allowed to take any thing but bread, fruits and water. Their dress is black, and, like that of the Franciscans, provided with a scourge. Their life is dedicated entirely to solitary devotion. They belong to the mendicant orders, and possessed, in the eighteenth century, 450 convents in 30 provinces. In 1815, Ferdinand IV of Naples restored to them their original convent. (See *Francis of Paula.*) In the Neapolitan territory, they are called *Paolotti.*

Minion (from the French *mignon*, adjective and substantive); a favorite, on whom benefits are undeservedly lavished. —In typography, *minion* signifies a certain kind of type. "Why," says Johnson, in his Typographia, or the Printer's Instructer, "this letter was denominated *minion*, we have not yet been informed; probably it was held in great estimation on its first introduction, and consequently received the title *minion* [darling]." In size, it is between nonpareil and brevier; as, for instance, a b c.

Minister; properly a chief servant; in political language, one to whom a sovereign intrusts the direction of affairs of state. In modern governments, the heads of the several departments or branches of government are ministers of the chief magistrate. It is also used for the representative of a sovereign at a foreign court. (See *Ministers, Foreign.*) In England, the words *ministry* and *ministers* are used as collective names for the heads of departments, but the individual members are not so designated. In the U. States, the heads of the departments are called *secretaries*, but are not termed *ministers.* In most large countries we find a minister for foreign affairs (whose duties are included in those of the secretary of state in the U. States), a minister of the interior (in England, secretary for the home department; in the U. States there is no such department, and the secretary of state has charge of the affairs which would fall to such minister). The minister of the interior has the management of all domestic affairs, roads, canals, &c., levying taxes (in many cases); in short, every thing which does not belong to the other departments; and it may easily be imagined how the importance of this department varies, as the government is more or less absolute, and disposed to exercise a more or less minute control over its subjects. In Prussia, where the government interferes in all the concerns of life, the minister of the interior is a most important person. On the continent of Europe, where the judiciary is considered a branch of the executive administration, there is always a minister of justice, whose office is incompatible with the independence of the judiciary and with the whole idea of the administration of justice entertained in England and the U. States (though in the former country the highest judge, the lord high chancellor, is a member of the ministry). There is, further, a minister of finance (in England, the chancellor of the exchequer, in the U. States, the secretary of the treasury). In some states there is, besides the minister of finance, a minister of the treasury. There is also a minister or secretary of war, and in maritime states, a minister or secretary of the navy, and sometimes a minister for the colonies. There is often a separate minister of commerce (in England, the president of the board of trade); a minister of the police (first established by the directory in France). In many countries on the European continent, where the idea of a well regulated government is unhappily confounded with a concentration of all powers in a few individuals, there is, also, a minister of public worship, who has the direction of all ecclesiastical affairs. This department though it also exists in Catholic countries, as in France, yet has received the greatest developement in Protestant countries, in which the monarchs have declared themselves the heads of the church, and the officers of religion are considered, to a certain degree, servants of the government. We often find a minister of instruction, generally the same with the minister for ecclesiastical affairs. A minister of the household often directs the private affairs of the monarch. Though the name of the ministers in most countries correspond, yet their power is very different in a *bureaucracy* (q. v.), where it extends in minute ramifications through the whole organization of society, and, in a country like England or the U. States, where the concerns of the particular corporations are independent of their control. In the former class of governments, each minister is a sort of viceroy in his department. One of these ministers is, in many countries, prime-minister, or *premier*, who, in constitutional monarchies, is considered as the chief person in the administration. Sometimes he has no particular department. In France, he is called minister president. In England, the prime-minister is the one who receives the king's order to form a ministry, and therefore to appoint men of his own sentiments. He is generally the first lord of the treasury. In some countries, there is, also, a president of the ministry. In the U. States, there is no such post as that of *premier*, because every thing is done in the name of the president, who, in many points, corresponds to the premier of a constitutional monarchy. The British king's cabinet ministers vary somewhat: under the duke of Wellington, they were the following: 1. First lord of the treasury; 2. lord high chancellor; 3. chancellor of the exchequer; 4. secretary of state for foreign affairs; 5. secretary of state for the colonial department; 6. secretary of state for the home department; 7. president of the council; 8. president of the board of trade and treasurer of the navy; 9. lord privy seal and president of the board of control (Indian affairs); 10. secretary at war; 11. chancellor of the duchy of Lancaster; 12. master of the mint. The French ministry consists of, 1. the minister of the interior; 2. minister of finance; 3. keeper of the seals and minister of justice; 4. minister of public instruction and ecclesiastical affairs; 5. minister of commerce and public works; 6. minister of the marine and colonies; 7. minister of war; 8. minister of foreign affairs. The American cabinet consists of the secretaries of state (foreign and home affairs), of the treasury, of war, and of the navy. The attorney-general and sometimes also the postmaster-general are members of the cabinet. The chief-justice of the supreme court of the U. States is never a member of the cabinet. He is merely a judicial officer, and not removable, except by impeachment. The lord high chancellor is the only judge in England who belongs to the ministry. In France and England, the members are appointed solely by the king; in the U. States, the concurrence of the senate is necessary for the appointment of the secretaries, and all other officers nominated by the president. No case, however, has yet existed in which the senate has refused to concur in the appointment of the secretaries, because it has been thought unfair to deny the president the choice of his own cabinet, as all the responsibility rests upon him. The modern idea of constitutional monarchies, in which two most heterogeneous principles, the inviolability of the law, and that of the monarch, who thus stands above the law, were to be reconciled, produced a skilful contrivance—the responsibility of ministers—in order to leave the inviolability of the monarch uninfringed, and yet to put a check upon the arbitrary use of his power. Europe owes this developement of constitutional law, as most of the improvements in her political institutions, to England. One or more ministers in France and England (and many other countries) countersign the royal orders, and by thus doing become responsible for the contents. Every reader recollects the late case in France, in which the ministers were called to account for the royal ordinances. (See *France*, and *Polignac*.) This responsibility is always a delicate thing, because it is impossible to define with exactness what constitutes unconstitutionality and a violation of the public interest; and, hard as it may appear in the abstract, the question must be left to the houses of legislature to decide, in case of an impeachment of the ministers. In general, however, there is little danger of the ministers being impeached, except for very flagrant violations of law, or in times of very violent party spirit. Peculation also forms a ground of impeachment. In the U. States, no such responsibility rests on the secretaries, nor is their countersign requisite, for the simple reason that the president himself is answerable for every thing which he does, and may be impeached. (See *Impeachment*.) Though the constitutional monarch has the full right to appoint and discharge his ministers according to pleasure, he is, nevertheless, obliged to appoint such as will satisfy public opinion, or the legislature will not grant supplies, and, in fact, will not coöperate with the administration. This denial to grant supplies, which is the great support of the people against the government, was called, some time ago, in France, an outrageous interference with the king's prerogatives. In England, the command of a majority in the houses has become indispensable for the ministers, so that the loss of a bill brought in by them is regularly followed by the resignation of the premier. This applies, however, only to what are denominated cabinet questions, in respect to which it is considered necessary that the ministry should be united. Where a difference of opinion is openly professed by the ministers themselves, the question is not a cabinet question, and the failure of a bill proposed by a minister respecting it is not considered fatal to the administration. Thus the Catholic emancipation was for a long time not a cabinet question; and when Canning lost his bill, in 1827, he, nevertheless, did not give in his resignation. The situation of the constitutional monarch in France and England, and many other reasons in the organization of the governments of those countries, render it necessary for the ministers to be present at the parliamentary debates, and to support their measures: in fact, one member of the cabinet, the lord high chancellor, is, *ex officio*, president of the house of lords. In England, those of the ministry who are peers sit in the house of lords; the others sit in the house of commons, in virtue of being elected members; but it is considered indispensable that they should be there. They could not be admitted into the house except as members. The prime-minister, if a peer, sits in the lords: Pitt and Canning, who were commoners, sat in the commons. In France, the ministers are also generally members of one or the other house, but they need not be members, because the constitution gives them the right of being heard in either house, by virtue of their office. The ministers have their bench in France. In the U. States, no secretary can sit in either house, as the constitution prohibits any officer of government from being chosen a representative or senator. In Russia, the cabinet is different from the ministry. The former has the management of the emperor's private affairs and of foreign politics, and its members are called *cabinet* ministers; the members of the ministry, so called, are termed *state* ministers. Some governments have also *conference* ministers, who have no real departments. The love of titles has produced a great mixture of these designations in different countries. In France, it was formerly customary to appoint an ex-minister minister of state, with a pension. Those who were ministers of state before the revolution of 1830, nave remained so; but the ex-ministers, since 1830, have returned to their private stations. In England, the privy council is to be distinguished from the ministry. The former contains a very large number of members.

Ministers, Foreign. In the article *Diplomacy*, some account has been given of the history of embassies: it remains here to speak of the different classes of foreign ministers as they now exist. Every person sent from one sovereign government to another, and accredited to the latter, in order to transact public business, of a transient or permanent character, in the name of his government, with that to which he is sent, is a foreign minister. Sometimes such ministers are sent merely to be present at the coronation of a foreign prince; sometimes to settle disputed points; at other times to reside permanently with the foreign government. Generally, they are divided into three classes. Those of the first class, called *ambassadors*, are not merely the agents of their government, but represent their sovereign personally, and receive honors and enjoy privileges accordingly. The French, English, Spanish, Russian, Austrian governments send ambassadors to each other; the Prussian government does not send ministers of this rank. The second class are those called by the joint title of *envoys extraordinary and ministers plenipotentiary;* they represent their government; such are sent by the U. States. The third class consists of the ministers resident (*ministres résidens, ministres chargés d'affaires*), to whom less honor is generally paid. They, however, like the former, are on the European continent styled by courtesy *excellency.* Of still lower rank are the *chargés d'affaires.* According to the regulations adopted by the congress of Vienna, the number of classes has been reduced, so that there are at present only ambassadors, envoys extraordinary and ministers plenipotentiary, and *chargés d'affaires.* Persons who are sent merely to conduct the private affairs of their monarch or his subjects in a foreign place are called *agents*, or *residents;* and where they are occupied chiefly with subjects of a commercial character, they are called *consuls.* (q. v.) They are not considered diplomatic persons, and do not enjoy privileges accordingly. The *legati a latere* (q. v.) enjoy the privileges and honors of ambassadors. Ambassadors and even ministers plenipotentiary have young gentlemen with them, called *attachés*, who have no particular charge, but merely this title to connect them with the legation, and to give them thus admission into the highest society. Sometimes they are sons of noble families, who are preparing themselves for diplomatic offices, but think it beneath their dignity to accept an appointment as secretary of legation. The suite of ambassadors always includes more individuals than the business of the embassy requires, a certain degree of pomp being considered necessary. An ambassador has generally three, always two secretaries of legation; other ministers often but one. A foreign minister receives letters of credence from his court, which, after having delivered an attested copy of it to the secretary of state, he gives himself to the monarch, or head of the government, if he is an ambassador, in a public audience, if not, in a private audience. After the reception of the credentials, the minister is said to be acknowledged. In some countries, he puts the arms of his nation or sovereign on his mansion. After his credentials have been received, he makes formal visits to the other ambassadors, to be recognised by them as such. From the moment that a minister enters the territory of the sovereign to whom he is sent, his person is held sacred and inviolable, and he acquires important privileges. To these belongs, first of all, his freedom from territorial restrictions; that is, he is not regarded as an inhabitant of the country, but his person, suite, house, equipage, &c., are considered as never having left the country to which he belongs, and as being without the jurisdiction of that in which he actually resides. From this follows the freedom of foreign ministers from the civil and criminal law; and the same applies to their suite; and all property belonging to him as minister is free from all taxes, &c. No common police-officer, tax-gatherer, or other public servant, can enter his hotel, and make inquisition, as in the house of a private citizen. But whether his hotel shall be a place of refuge for transgressors, and whether the delivery of them may be refused to the officers of the state, are questions equally doubtful and important. The privilege formerly appertaining to ambassadors, by means of which, upon hanging up the arms of their sovereign, they could exempt from the laws of the land the whole quarter of the town or city in which their hotel happened to stand, is abolished as an abuse. The freedom from taxes of all property belonging to the embassy has been subjected to many restrictions, in consequence of the occurrence of abuses of this privilege. Foreign ministers are not free from bridge and turnpike tolls, or letter-postage. One of their especial privileges is that of worshipping according to the forms of their own religion in countries where their religion is not tolerated. In transacting business, they sometimes have immediate intercourse with the sovereign himself, and then address him in a private audience orally, or by the delivery of memorials; but more commonly their intercourse is through the minister for foreign affairs. This state of things continues till the termination of the embassy, which may occur in different ways, either by the expiration of the term of the credentials, by a recall, by a voluntary or compulsory departure, or by the decease of the minister. A recall occurs when the object of the embassy is obtained or defeated; sometimes it takes place in consequence of a misunderstanding, and sometimes from private reasons. A minister often voluntarily leaves a court, without being recalled, when he thinks he suffers personal injuries, contrary to the laws of nations. There are cases, however, in which a minister is compelled to leave a court, when it is termed a *removal*. In general, an embassy is considered as ended from the moment when the minister shows his letters of recall, or receives his passports for his journey home. When these are furnished him, he must leave the country, but his person remains inviolable even in case of war, and he is allowed to retire unmolested. The Ottoman Porte alone claims to be excepted from this regulation, since it imprisons in the Seven Towers the ministers of states with which any misunderstanding happens to occur. At the peace with Russia, however, in 1813, it engaged never to exercise this power for the future upon Russian ambassadors. The same inviolability of person is enjoyed in the other European states, although only in time of peace, by couriers and expresses, as also by persons who, without any public character as envoys, are intrusted by their governments with the transaction of affairs of importance, and requiring secrecy and despatch; but these are not allowed to assume the state of a minister, and, in their relations to other citizens, are regarded as private persons merely. All these regulations have naturally been introduced among the European powers since the establishment of the permanent residence of foreign ministers, that is, since the peace of Westphalia. Republics do not send ambassadors, in the European sense of the word. Venice, indeed, formerly sent ambassadors; but the U. States send only ministers plenipotentiary and *chargés d'affaires*, although the constitution uses the term *ambassador*. Prussia alone, among the principal European powers, neither sends nor receives ambassadors. A history of European diplomacy, since the peace of Westphalia, would be a very important work, in regard to politics, national law, and the progress of civilization, and is still a desideratum. Flassan has made some excellent contributions towards it. (A useful work, and one which gives instruction and examples in regard to all the relations and objects of embassies, is the *Manuel diplomatique, ou Précis des Droits et des Fonctions des Agens diplomatiques, suivi d'un Recueil d'Actes et d'Offices, pour servir de Guide aux Personnes qui se destinent à la Carrière politique*, by Charles von Martens (Leipsic, 1822). The law of European embassies has been particularly treated of by F. von Moshamm (Landshut, 1806).

Mink (*mustela*). The animal known in the U. States under the name of *mink* is so similar to the European quadruped of the same name that they have been generally confounded with each other. The common name of both species is derived from the Swedish *mænk*. The American animal is the *M. vison* of naturalists, and is generally to be found on the banks of streams, especially near farm-houses and mills. It swims and dives well, and can remain under water for a considerable time. It preys upon small fish, muscles, &c., but also commits depredations on the poultry yard, and will devour rats, mice, &c. The mink, when irritated, exhales a very fetid smell, almost equal to that of the skunk. It is easily tamed, and is capable of strong attachment, but, like the cat kind, is readily offended, and will bite on a sudden provocation. The fur is of little value.—The European mink (*M. lutreola*) inhabits the northern parts of Europe, and, like the American species, lives on the banks of streams, feeding on frogs, craw-fish, &c. It is of a brownish-red color. It has a strong musky smell, and its fur is very fine.

Minnesingers. The ancient German word *minne* was used originally to denote love and friendship, even divine love. At a later period, the German poets of the middle ages expressed by it particularly a pure, faithful, and generally happy love between the two sexes. Walther von der Vogelweide distinguishes the high from the low minne (a distinction similar to that of the ancients), and defines the former to be the happiness of two hearts which give and receive equal bliss. Love, the vital element of chivalry, was with the German poets something purer, more ideal, more deep, than with the French. The name *minnesingers* is given to the lyric German poets of the middle ages in general, on account of love being the chief subject of their poems. They are also called *Suabian poets*, because the Suabian dialect prevails in their poems. At the beginning of the 12th century, when the art of poetry came from the south of France to Germany, it found a welcome reception at the court of the Hohenstaufen (q. v.), the Suabian emperors of Germany. The minnesingers were knights, or at least men of noble descent, who lived and sung at the courts of princes who loved and protected the arts, such as the emperor Frederic II, the duke Leopold IV of Austria, king Wenceslaus of Bohemia, duke Henry of Breslau, and others. After the fashion of the Provençal Troubadours, the minnesingers engaged in poetical contests for the gratification of princes and ladies of the court. Some among them were poor, and earned their living by reciting their songs from court to court; but most of them sang merely for pleasure, when their swords were unemployed. Not a few princes took part in these songs. This poetry was essentially chivalric, and breathes the romantic spirit of that extraordinary age. Glowing devotion to the virgin Mary and the Catholic religion; ideal love for a chosen lady; the charms of spring, always so intimately connected with romantic and lyric poetry;—these formed the constant subjects of their verse. Every poet sung his compositions and accompanied them himself. The most extensive collection of these smaller poems which we possess, and which contains from 1400 to 1500 pieces by 140 poets, was collected by the burgomaster of Zürich, Rüdiger von Manesse, in the beginning of the 14th century; at the close, therefore, of the flourishing period of this species of poetry. (See *Manesse.*) L. Tieck has published 220 poems, modernized from that great collection, under the title of *Minnelieder aus dem Schwäbischen Zeitalter* (Berlin, 1803). There is a new critical edition by Von der Hagen. The earliest of the minnesingers now known is Henry of Veldeck, who flourished about 1180. Most of the distinguished ones lived towards the end of the 12th and at the beginning of the 13th centuries. Towards the end of the 13th century, after the close of which they gradually became silent, lived Conrad of Würzburg and John Hadloub. (For the epic poetry of Germany in the same age, see *Nibelungen*, *Heldenbuch*, and *German Poetry.*) The knights sunk once more back to almost total barbarism, and poetry fled into the cities, where it was cultivated by mechanics in a mechanical way. (See *Mastersingers*, also *Chivalry*, and *Minstrels.*)

Minnow; the name applied to several species of small fresh-water fish, and even to the young of larger kinds. The minnow of England, from whence we derive the term, is a small Cyprinus, as are also some of the minnows of the U. States. Taking these fish is one of the favorite amusements of children. This first essay in angling is generally performed with a bended pin, baited with a small earthworm. The word *minnow* is derived from the French *menu*, small.

Minor; the Latin for *less*, used in contradistinction to *major*, as Asia *Minor*, *minor* excommunication, *minor* offences.

Minor, in logic. (See *Syllogism.*)

Minorate; the contrary of *majorate*, i. e. the privilege of the youngest son to inherit the real estate of the father, with the obligation, however, to pay a certain sum to his brothers and sisters. This is actually the custom in some places of Germany.

Minorca; an island in the Mediterranean, belonging to Spain, one of those anciently called *Baleares* (q. v.), about 30 miles in length, and about 10 in breadth; 30 E. N. E. Majorca. (q. v.) The surface is uneven, the soil not generally fertile, the water scarce and hard, the air moist. Some wine is exported, but the quantity of grain is not sufficient for the inhabitants. The island owes its political importance to the valuable harbor of Port Mahon. (q. v.) One of the most profitable commodities of the country is salt. Population, 44,167; square miles, 240; lon. 4° 10′ E.; lat. 39° 59′ N.

Minorites. (See *Franciscans.*)

Minority, in law; the age of minors. According to the Roman law, full age takes place, with both sexes, at the 25th year; in Prussia, at the 24th; in France, Saxony, England, and the U. States, at the 21st. Monarchs, in almost all countries, come of age much sooner than other persons, very often in their 18th year. The golden bull declares the German electors of age at 18. (See *Age*; and, for minority in the English law, see *Infant.*)

Minos; 1. a king of the island of Crete, who lived about 1406 B. C., and is not to be confounded with his grandson of the same name. He is celebrated as a wise lawgiver, and for his strict love of justice. To make the Cretans formidable and powerful, by union and military spirit, he obliged them often to eat in common, and constantly exercised them in military duties. Tradition has adorned the history of this king with various additions. According to it, he was a son of Europa and Jupiter, from whom, every nine years, he received his laws in a cavern on mount Ida. After his death, Minos was made, with Æacus and Rhadamanthus, a judge in the infernal world. All three sat at the entrance to the kingdom of shades. Minos, as the chief justice, delivered the sentence.—2. A grandson of the preceding, who also ruled over Crete, and was the husband of Pasiphaë, whose unnatural passion gave birth to the Minotaur. (q. v.)

Minot, George Richard, an American historian, was born at Boston, in December, 1758, and completed his studies at Harvard college. He embraced the profession of the law, which he practised with much credit. In 1792, he was appointed judge of probate for the county of Suffolk, Massachusetts. Judge Minot cultivated, successfully, literature and science. He was one of the founders of the Massachusetts historical society. He published a very interesting narrative of the insurrection in Massachusetts in 1785, and various orations which he pronounced in public; but his chief production is a valuable Continuation (in 2 vols.) of Hutchinson's History of Massachusetts. He died in January, 1802. A full account of his labors and character is contained in the eighth volume of the Collections of the Massachusetts Historical Society.

Minotaur. Fable makes this being the son of Pasiphaë and a bull, and ascribes to him the body of a man with the head of a bull. He ate human flesh, on which account Minos confined him in the labyrinth built by Dædalus, and at first exposed to him criminals, but afterwards the youths and maidens yearly sent from Athens as a tribute, until at length Theseus (q. v.), who was comprehended among the youths, and was instructed and armed by Ariadne, the daughter of Minos, killed him, and freed the Athenians from this tribute.

Minster (Anglo-Saxon, *Mynster*, from *monasterium*) anciently signified the church of a monastery or convent, afterwards a cathedral. (q. v.) In German, the word is written *Münster*. Both in German and English, this title is given to several large cathedrals, as, *York minster*, the *minster of Strasburg*, &c. It is also found in the names of several places, which owe their origin or celebrity to a monastery, as, *Westminster*, *Leominster*, &c.

Minstrel (French, *menéstrier*, from *ministerialis*); a name introduced into England by the Normans, and which comprehended singers and performers of instrumental music, together with jugglers, dancers, sleight-of-hand performers, and other similar persons, whose trade it was to amuse the great. The character of the minstrels differed much at different periods; and while we find them, at one time, the friends and favorites of princes, we see them, in the reign of queen Elizabeth, classed with beggars and vagabonds, and forbidden to exercise their trade. The minstrels often sang the compositions of others, but they were often the authors of the poems which they recited. (See Percy's and Ritson's works on minstrelsy; see, also, the articles *Minnesinger*, and *Troubadours*.)

Mint (*mentha*); a genus of labiate plants, distinguished, however, by having the corolla divided into four nearly equal lobes. The stamens are four, two of them longer than the others. The species are herbaceous, nearly all perennial, having square stems, which bear opposite and simple leaves; the flowers are small, verticillate, collected into bunches in the axils of the leaves. Sixty species are known, all growing in temperate climates, and most of them European. Two or three species only inhabit the U. States. They abound in resinous dots, which contain an essential oil. They have an agreeable odor, and have been celebrated, from remote antiquity, both in mythology and from their useful qualities. They partake, in the highest degree, of the tonic and stimulating properties which are found in all labiate plants. To the taste they are bitter, aromatic and pungent. The *M. piperita*, or pepper-mint, is the most powerful, and, on this account, is most generally employed in medicine. The *M. viridis*, or spear-mint, is milder, more agreeable, and is very commonly employed for culinary purposes. The latter plant is now naturalized, and very frequent in many parts of the U. States.

Mint; a place where money is coined by public authority. In Great Britain there was formerly a mint in almost every county; but the privilege of coining is now a royal prerogative in that country, and the prerogative of the sovereign power in other countries. The only mint now in Great Britain is in the Tower of London. The mint in the U. States is in Philadelphia. Coining, among the ancients, and, indeed, among the moderns till within the last 280 years, appears to have been very rudely and imperfectly performed, by placing the blank piece of money between two dies, or steel punches, containing the design of the coin, and striking upon the upper one with a hammer. This hammer-money is always imperfect, from the uncertainty of placing the two dies exactly over each other, and also from the improbability of a man being able to strike a blow with such force as to make all parts of the impression equally perfect. The coining-press, or mill, is of French origin, and is generally said to have been first tried in the palace of Henry II of France, in 1550 or 1553. It continued in use till 1583, when Henry III reëstablished the hammer-coinage, on account of its superior cheapness. The mill, or press, was introduced from France into England in 1562, in the reign of Elizabeth; but, after about ten years, it was given up for the same reason as in France. In France, it was reëstablished completely in 1645, by Louis XIV. In 1623, it was established anew in England, by Briot, a French artist. It was used there, alternately with the hammer, for 40 years. Under Charles II, in 1662, it obtained the complete ascendency, and has remained in use ever since. The improvements made in it by Mr. Boulton have made it the cheapest method, as well as the most perfect. In coining by the mill, the bars, or ingots of gold or silver, after having been cast, are taken out of the moulds, and their surfaces cleaned. They are then flattened by rollers, and reduced to the proper thickness to suit the species of money about to be coined. To render the plates more uniform, they are sometimes wire-drawn, by passing them through narrow holes in a steel plate. The plates, whether of gold, silver, or copper, when reduced to their proper thickness, are next cut out into round pieces, called *blanks*, or *planchets*. This cutting is performed by a circular steel punch of the size of the coin, which is driven downward by a powerful screw, and passes through a corresponding circular hole, carrying before it the piece of metal which is punched out. The pieces which are thus cut, are brought to the standard weight, if necessary, by filing or rasping; and the deficient pieces, together with the corners and pieces of the plates left by the circles, are returned to the melter. The milling, by which the inscription, or other impression, is given to the edge of the coin, is performed by rolling the coin, edgewise, between two plates of steel, in the form of rulers, each of which contains half of the engraved edging. One of these plates is fixed, and the other is movable by a rack and pinion. The coin, being placed between them, is carried along by the motion of the rack, till it has made half a revolution, and received the whole impression on its edge. The most important part of the coining still remains to be done, and consists in stamping both sides with the appropriate device, or figure, in relief. For this purpose, the circular piece is placed between two steel dies, upon which the figures to be impressed are sunk, or engraved in the manner of an *intaglio*. The two dies are then forcibly pressed together, by the action of a powerful screw, to which is attached a heavy transverse beam, which serves the purpose of a fly, and concentrates the force at the moment of the impression. The coin is now finished, and is thrown out when the screw rises. In the coining machinery erected by Boulton and Watt, and introduced at the mint in England, the process is performed by steam power, and both the edges and faces of the money are coined at the same time. By means of this machinery, eight presses, attended by boys, can strike 19,000 pieces of money in an hour; and an exact register is kept by the machine of the number of pieces struck. For the coining of medals the process is nearly the same as for that of money. The principal difference consists in this, that money, having but a small relief, receives its impressions at a single stroke of the engine; whereas in medals, the high relief makes several strokes necessary; for which purpose the piece is taken out from between the dies, heated, and returned again. This process for medallions is sometimes repeated as many as a dozen or more times, before the full impression is given them. Some medallions, in a very high relievo, are obliged to be cast in sand, and afterwards perfected by being sent to press.

Mintarees, or **Minetarres** (called, also, the *Big-Bellies*); a tribe of Indians, in the northern part of the Missouri Territory. (See *Indians, American.*)

Minucius Felix, Marcus; a native of Africa, who, about the close of the second and the commencement of the third centuries of the Christian era, attained to a considerable degree of reputation at Rome as a rhetorician. He was a Christian, and wrote a dialogue in defence of his religion, entitled *Octavius*, of which Jerome and Lactantius speak highly. This work, however, was long considered to be the composition of Arnobius, till, in 1560, Baudouin restored it to its real author. Another treatise, *De Fato*, has also been ascribed to him; but from the difference of style which it exhibits, when compared with the other work, some doubts are entertained as to its authenticity. There are two English translations of the Octavius.

Minuet (French, *menuet*); a French dance, in slow time, which requires great grace and dignity of carriage. It was, therefore, considered as the touchstone of an elegant dancer, and is admirably adapted to cultivate ease and grace of motion. It was the favorite dance in the time of Louis XIV, but has since been supplanted by contra-dances, quadrilles, &c. According to Brossard, the minuet was originally from Poitou, and is said to have had, at first, a quicker motion. According to Schubart, Lully (1603 to 1687) was the inventor of the minuet, and Louis XIV is said to have danced the first in 1660, at Versailles. The name is derived from *menu* (little), on account of its short, measured steps.

Minute; a division of time, and of angular measure. The degree is divided into 60 minutes. The divisions of degrees are fractions, whose denominators increase in a sexagesimal ratio; that is, a minute is $= \frac{1}{60}$, or second $= \frac{1}{3600}$, &c. of a degree. Minutes are expressed by acute accents, thus $'$ the seconds by two $''$; the thirds by three $'''$. In the computation of time, a minute is the 60th part of an hour.

Minutoli, Henry, baron Menu von, was born at Geneva, of a Savoyard family, in 1772; entered the Prussian military service, and was, at a later period, tutor to prince Charles, son of the king. In 1820, he married the widow of baron Von Watzdorf. She accompanied him on his scientific expedition to Egypt, made under the royal patronage. He returned in 1822. A part of his collections was lost by shipwreck; the king of Prussia purchased the remainder for the new museum in Berlin, for about $15,000. Among his works are, Considerations on the Military Art (3d ed., 1816); On the Ancient Painting on Glass (in connexion with Klaproth); Journey to the Temple of Jupiter Ammon, in the Desert of Libya (Berlin, 1824); Additions to my Journey, &c. (1827); and Description of an old Heathen Burial Place, discovered at Stendal in 1826 (Berlin, 1828). The baroness has also published *Souvenirs d'Egypte* (Paris, 1826; English, London, 1827). The travellers arrived at Alexandria, from whence the baroness went to Cairo, while her husband visited Cyrene (q. v.), determined the position of the oracle of Jupiter Ammon, at Siwah (in 29° 12′ N. lat.), and, after returning to Cairo, visited Thebes. The works above mentioned contain numerous engravings.

Minyæ; 1. the Argonauts were so called, either because the bravest of their number were descended from Minyas, or because they were natives of the land of the Minyæ, who had occupied the country from Iolchos to Orchomenus.—2. A people of Bœotia, near Orchomenus. Their state was, at an early period, powerful, and was founded by a Pelasgic tribe. They derive their name from Minyas, one of their kings, whose father, Orchomenus, built the city of that name.—See Müller's *Orchomenos und die Minyer* (Göttingen, 1820).

Miquelets; the inhabitants of the Southern Pyrenees, in Catalonia, and in the French departments of the Upper and Eastern Pyrenees, on the heights of the chain of mountains which forms the boundary between France and Spain. They are mostly herdsmen, hunters, coal-burners, &c. They are warlike, and inclined to plunder. They also accompany travellers on the mountain-passes, and receive high pay for their protection. In war, they are dangerous partisans, who often descend into France in troops. In the war with Napoleon, they made themselves formidable to the French troops in Catalonia.

Miquelon; an island in the Atlantic ocean, near the southern coast of Newfoundland, belonging to France; lat 47° 4′ N.; lon. 56° 20′ W. To the south of it lies Little Miquelon (*Petite Miquelon*), which, since 1783, has been connected with it by a sand-bank. These islands are under the direction of the commandant of St. Pierre (see *Pierre, St.*), and are occupied only by a few families engaged in the fisheries.

Mirabeau, Honoré Gabriel Ricquetti, count of, so famous for his influence in the French revolution, was born March 9, 1749, at Bignon, in Provence, and died at Paris, April 2, 1791. He sprang from a celebrated family. Nature gave him violent passions and a robust frame. Education might have made him a truly great man; but the propensities of his genius were checked, and the developement of his energies perverted. When 14 years of age, he entered a military boarding school, where he studied mathematics, made some progress in music and drawing, and became a proficient in bodily exercises. But as his moral education was entirely neglected, the most vehement passions grew with his growth. While yet a boy, he published a eulogy on the great Condé, and some pieces in verse. On leaving school, he entered the military service; and his intercourse with young and dissipated officers made him familiar with all their vices. His active mind, however, could not remain idle, and he read all the books which he could procure on the military art. He also fell in love; and his passion was marked by all the impetuosity of his character. His father, who systematically thwarted his inclinations, now procured his confinement in a fortress on the island of Ré. He was even on the point of having him sent to the Dutch colonies. But the friends of the family succeeded in preventing it. This abuse of the paternal power decided the son's hatred of despotism. After his liberation, he went, as a volunteer, to Corsica. He distinguished himself, and obtained a commission as captain of dragoons; but as his father refused to purchase him a regiment, he abandoned, though unwillingly, the military profession. During the war in Corsica, he wrote a memoir respecting it, with remarks on the abuses of the Genoese aristocracy, and gave it to his father, who destroyed it. In conformity with the request of his father, he now settled in Limousin, and employed himself in cultivating the earth and in conducting lawsuits. But he soon became weary of his situation. His domestic circumstances, moreover, were unhappy. In 1772, he had received, in Aix, the hand of Mademoiselle de Marginane, an amiable young lady, with prospects of large fortune. But his extravagant propensities soon involved him in a debt of 160,000 livres. His contentious and inflexible father took advantage of the embarrassments of his son, and obtained, from the Chatelêt in Paris, an interdict, by which he confined him to his estate. Here he published his Essay on Despotism. He soon after left his place of confinement, to avenge an insult offered to his sister; and a new *lettre de cachet* imprisoned him, in 1774, in the castle of If, from whence he was transferred to Joux, near Pontarlier, in 1775. Here he first saw his Sophia, the wife of the president Monnier, a man of advanced age. She was well affected towards him. His passion for her soon became extremely violent. But St. Maurice, the commander of the fortress, was his rival. In order to escape from the persecutions of this man and his father, he fled to Dijon, whither his mistress followed. He was seized, and his father obtained new letters of arrest. Meanwhile M. de Malesherbes, who was then minister, and felt much good will for the young Mirabeau, gave him a hint to escape from the country. He fled to Switzerland, and Sophia rejoined him there. He then took refuge in Holland with his mistress. The offended husband entered a complaint for seduction. Mirabeau was condemned to death, and was decapitated in effigy. In Holland, he went under the name of *St. Matthew*, and lived unnoticed with Sophia, his books, and some friends. During the years 1776 and 1777, he supported himself and his mistress altogether by his literary labors. Among other things, Mirabeau translated, in conjunction with Durival, Watson's History of Philippe II. Learning that his father accused him of the blackest offences, he avenged himself by sending abroad libels against him. His father now effected a violation of international law, and a police officer was sent to Holland, with letters of arrest, signed by Amelot and Vergennes. Mirabeau and his mistress were arrested, in 1777, without the consent of the Dutch governor. Mirabeau was incarcerated at Vincennes; but Sophia, being far advanced in pregnancy, was resigned to the inspection of the police. After her delivery of a daughter, she was conveyed to the convent of St. Clara, at Gien. During an imprisonment of three years and a half, at Vincennes, Mirabeau wrote the celebrated *Lettres à Sophie; Lettres originales de Mirabeau* (1792, 4 vols.). Of these, *Lettres écrites du Donjon de Vincennes* (1777—1780, 3 vols.), a new edition appeared in 1820. Their accent is passionate, and the style is various, flowing and forcible. Mirabeau's health was much affected by his confinement, and, under many bodily sufferings, he wrote, with the assistance of Calmet's Dictionary of the Bible, his *Erotica Biblion*, a very free picture of the excesses of physical love, among different nations, particularly the Jews. At the same time, he projected a grammar and a treatise on mythology, translated *Johannes Secundus*, and exposed the abuses of despostic authority in his energetic work on *Lettres de Cachet*. As he was denied paper, he tore out the blank leaves in the beginning and end of the books allowed him. He concealed the leaves in the lining of his clothes, and left the prison with the manuscript of his *Lettres de Cachet* thus sewed in. His long incarceration had wearied his persecutors. The judges also saw that the conduct of Mirabeau's father, whose own character was far from moral, could only proceed from revenge and hatred. The son was therefore released, in 1780, and seems to have become reconciled with his father, for he lived with him, and left the paternal mansion only to obtain the revocation of the sentence of death pronounced against him in Pontarlier, in which he succeeded in 1782. At the same time, Sophia recovered her dowry and freedom. Mirabeau now returned to Provence, and tried to effect a reconciliation with his wife. But nothing could overcome the opposition of his wife's relatives. He therefore had recourse to the law, and a process took place which was honorable to neither party, and which his wife gained. Mirabeau now went to London. His letters show that his opinions respecting England were not, in general, very favorable. He wrote there the *Considérations sur l’Ordre de Cincinnatus*—an order of which he disapproved, as the beginning of a military aristocracy in the U. States. He likewise wrote against the plan of Joseph II to make the Scheldt free, and, against Linguet's famous work,—his *Doutes sur la Liberté de l’Escaut*. He was also a coadjutor in the French journal, published in London, *Le Courrier de l’Europe*. In his subsequent writings on the *Caisse d’Escompte*, the *Banque de St. Charles*, the *Actions des Eaux*, he discussed the grounds of public credit, and of speculations in the public stocks, according to Adam Smith's principles, with much eloquence. This and the satirical portraits of famous persons, brought his works into repute. He nevertheless solicited in vain, of the minister of finance, Calonne, the office of consul in Dantzic or Hamburg. He now lived some months of 1786 in Berlin, and then went to Brunswick, but returned to Berlin in the same year, probably with secret commissions from his court. In Berlin he collected information and projected the plan of the ingenious, but far from faultless work, *De la Monarchie Prussienne*, which was executed by his friend Mauvillon. (q. v.) His description of Frederic II is especially admired. In 1787, Mirabeau returned to France. Calonne having convoked the notables, Mirabeau brought out his *Dénonciation de l’Agiotage, au Roi et aux Notables*. The king, on account of the offensive character of this pamphlet, ordered the author to be imprisoned; but he escaped, and wrote a continuation of his *Dénonciation de l’Agiotage*. He now wrote his *Avis aux Bataves*. At that time there also appeared (von Dohm asserts, V. 409, without the consent of Mirabeau) the letters on the Prussian court, written in confidence to Calonne, entitled *Histoire secrète de la Cour de Berlin, ou Correspond. d’un Voyageur Français, depuis le 5 Juill. jusqu’ au 19 Janv.*, 1787 (1789, 2 vols.). This work was an indiscreet disclosure of his political manœuvres, and was written in the tone of a libel. It excited general reprehension of a man so unscrupulous as to make of the secrets of hospitality, and the confidence of his friends and the government, an offering to the public appetite for scandal. The work was condemned, by the parliament, to be burnt by the common hangman. When the estates were actually convoked, he went to Provence for the purpose of being elected; but the *noblesse* of the province refused him a place among them, on the ground that none were entitled to it but the possessors of fiefs. He was now chosen, by acclamation, a deputy of the third estate, where he soon obtained an immense influence. The 23d of June was one of the most remarkable days of his political career. It was decisive of the fate of the monarchy. The king, after making important concessions in this memorable sitting, had ordered the assembly to separate. The assembly, however, remained together in their seats. The marquis of Brezé, master of ceremonies, came to remind the assembly of the orders of the monarch. Mirabeau, in the name of his colleagues, made the celebrated answer, "The commons of France have resolved to deliberate. We have listened to the king's exposition of the views which have been suggested to him; and you, who have no claim to be his organ in this assembly,—you, who have here no place, nor vote, nor right of speaking,—you are not the person to remind us of his discourse. Go, tell your master that we are here by the order of the people, and that nothing shall drive us hence but the bayonet." Mirabeau had already made an unsuccessful attempt to establish an understanding with the ministers, with a view of relieving the distracted state of his pecuniary affairs. Negotiations were afterwards entered into between him and the court. He required a pension of 40,000 francs a week, and the promise of such a diplomatic or ministerial post as he should select, after the rëestablishment of the royal authority. These demands were conceded, and he received the pension for several weeks. It was agreed that a dissolution of the assembly should be effected by an expression of the will of the nation, and that a new assembly should be convoked, composed of men of more moderate opinions. While the negotiations were pending, Mirabeau redoubled his activity in the assembly, and at the Jacobin club. Suspicions were already entertained of his defection from the revolutionary party, and clamors had already been raised against him, when a fever closed his stormy life, April 2, 1791. The news of his decease was received with every mark of popular mourning: his funeral was solemnized with the utmost pomp. His body was deposited in the Pantheon, from which, however, in 1793, his remains were taken and dispersed by the populace, who then stigmatised him as a royalist.—Mirabeau was the creature of his passions; the early restraints, which had been imposed upon him, served only to inflame them; and, with all the resources of genius, a decision and energy of will which yielded to no opposition, an audacity of purpose which shrunk before no difficulties, he united an insatiable ambition. His orations are collected in the work entitled *Mirabeau peint par lui-même* (1791, 4 vols.), and in the *Collection compl. des Travaux de Mirabeau à l'Assemblée nationale par Méjan* (1791, etc., 5 vols.), in *Esprit de Mirabeau* (1804), *Lettres inédites de Mirabeau, publ. par Vitry* (Paris, 1816, 2 vols.), in his *Œuvres oratoires* (complete, at Paris, 1819, 2 vols.), and *Œuvres choisies de Mirabeau* (Paris, 1820). Concerning his connexion with the court, the Memoirs of Mad. Campan (Paris, 1823, 3 vols.), contain some remarkable disclosures. The fifth *livraison* of the *Mémoires des Contemporains* (Paris, 1824) consists of four parts, containing *Mém. sur Mirabeau et son Époque, sa Vie littéraire et privée, etc.*

Miracle (Latin, *miraculum*, a wonder, a prodigy; in the original Greek, σημειον, τερας) is usually defined to be a deviation from the course of nature, or an event in a given system which cannot be accounted for by the operation of any general principle in that system. But this definition seems to omit one of the elements of a miracle, viz. that it is an event produced by the interposition of an Intelligent Power for moral purposes; for, otherwise, we must consider every strange phenomenon, which our knowledge will not permit us to explain, as a miraculous event. To the atheist, who does not admit the existence of a Supreme Intelligence, a miracle is an impossibility, a contradiction in terms. A miraculous event cannot, indeed, prove the existence of God, for it presupposes it; but it may prove the moral government of the world by the Deity, or the divine character of a communication which claims to come from him. It is in this light that we must consider miracles as the proofs of a revelation; and, in fact, a revelation is itself a miracle. If one claims to be a teacher from God, he asserts a miraculous communication with God: this communication, however, cannot be visible, and visible miracles may therefore be necessary to give credibility to his pretensions. To those who deny the possibility of miracles, a revelation is impossible. The use, then, of a miraculous interposition in changing the usual course of nature is to prove the moral government of God, and to explain the character of it. As to the nature of miraculous events, we may distinguish those which do not appear supernatural in themselves, but are rendered so by the manner in which they are produced, as cures of diseases by a touch or a word, and those which are supernatural in themselves, as in the burning bush which was not consumed, the stopping of the course of the sun, &c. In proof of miraculous occurrences, we must have recourse to the same kind of evidence as that by which we determine the truth of historical accounts in general; for, though miracles, in consequence of their extraordinary nature, challenge a fuller and more accurate investigation, still they do not admit an investigation conducted on different principles, testimony being the only assignable medium of proof for past events of any kind. While some writers have entirely denied the possibility of miracles, others have, with the same result, denied the possibility of proving the occurrence of a miracle. Hume's argument on this point is, that it is contrary to experience that a miracle should be true, but it is not contrary to experience that testimony should be false: it is therefore more improbable that the miracle should be true than that the testimony should be false. Without dwelling on the ambiguity of the expression "contrary to experience," it may be replied that the improbability arising from a *want of experience* of such events is only equal to the probability of their repetition, this being the precise measure of the improbability of their performance. To assert that, because miracles have occurred, they ought to occur again, or frequently, is to render a miracle impossible; for an event which is frequently occurring would cease to be a miracle. The existence of a Supreme Intelligence being allowed, the infrequency of miracles, or their being against our experience, is no argument against their occurrence. Hume asserts that a miracle is a contest of improbabilities; and there is no need of denying this assertion, as is usually done: the improbability of a miracle is weakened by considering it an event in the moral system of the universe—not a causeless phenomenon, or a useless violation of nature; and the improbability that the testimony to it should be false is strengthened by the publicity of the event, the intelligence and honesty of the witnesses, the consideration of the results which followed it, &c. Further than this, the testimony, under these circumstances, is a fact which it is more easy to account for by allowing the event testified to to have actually taken place, than to have recourse to any other hypothesis. In examining the different objections which have been urged against miracles, it will be seen that they arise, in general, from a neglect of the existence of a moral system: when it is objected that they are against the *usual course of nature*, that is, against all we know of the government of God, it is forgotten that they are entirely in accordance with his moral government, and that experience as fully proves the existence and nature, as plainly teaches the character, of this government, as of the physical system of the world. Most of the miracles, of which history is full, may, indeed, be put aside from want of sufficient testimony, from their being useless, unnecessary, or even unworthy of a wise and good Being, from the circumstance that the workers of them did not lay any claim to divine agency, from their having been without results, &c. We may also reject those which are referable to false perceptions; those which are merely tentative, that is, belonging to a series of attempts of which some were unsuccessful; those which are doubtful in their nature; those which are merely exaggerations of natural events, &c., especially if they are unconnected with others of a different character, or with moral effects: so miracles which are in support of an established creed, pretended to be wrought by men vested with a divine character in the presence of credulous devotees, if they do not belong to any of those above cited, are to be looked upon with suspicion. But, when miraculous powers are claimed to be exerted by the opponents of what is established in public opinion and supported by public authority, in the face of opposition and incredulity, by men without influence or friends, and when they convince and confound their bitterest enemies, and produce a change in their lives and characters as a proof of their conversion,—when these witnesses, with no interested motives, but with the certain prospect of suffering and persecution, come forward and testify their belief, and when all these results are declared to have been produced to prove the divine origin of doctrines calculated to elevate humanity, and the divine mission of teachers, who spoke as no man had ever before spoken,—we are not surely to refer these to the illusions of credulity, or the jugglings of imposture. It is not possible, in a work of this nature, to go into a minute examination of particulars. The subject is fully and ably treated in Campbell's Dissertation on Miracles, in Reply to Hume; in Paley's Evidences of Christianity; in Butler's Analogy of Natural and Revealed Religion, and numerous other works, to which we must refer the reader.

Mirage; an optical phenomenon, produced by refraction. The unusual elevation or apparent approximation of coasts, mountains, ships, and other objects, has long been known under the name of *looming;* and, if the same phenomenon is accompanied by inverted images, it is called a *mirage*. The mirage is frequently observed on the surface of the sea by sailors, and on dry sandy plains, as in those of Egypt, where it was repeatedly seen by the French, during their campaign in that country. The appearance presented is that of a double image of the object in the air; one of the images being in the natural position, the other inverted, so as to resemble a natural object and its inverted image in the water. It may be produced whenever the rays of light meet in an oblique direction, the surface of a less refracting medium than that in which they were previously moving: they are thus turned back into the original medium in the same direction in which they would be impelled by reflection taking place at the common surface of the two mediums. The surface of the earth or sea, becoming heated, communicates a portion of its caloric to the superincumbent layer of air, which thus becomes less dense than the superior layers. The rays of light which proceed from an object in the heated layer will then be bent downward, and thus arrive at the end in such a direction as to cause the object to appear above its actual position. In the desert, where the surface is perfectly level, a plain thus assumes the appearance of a lake, reflecting the shadows of objects within and around it, and the thirsty traveller is often tantalized with this appearance, which recedes, as, by approaching it, he changes the angle of direction of the rays which enter his eye. The mirage is commonly vertical, that is, presenting the appearance above-described of one object over another, like a ship above its shadow in the water. Sometimes, however, the images are horizontal. On the surface of the sea, the phenomenon may also be produced by the difference of moisture in the layer of air in contact with the water and the superior layer. (See *Optics*.)

Miranda, don Francisco, the earliest martyr of freedom in Spanish America, was born at Caracas, of an ancient Spanish family. His grandfather was governor of the province of Caracas. At the age of twenty, he travelled through a great part of America on foot, and afterwards received the commission of colonel in the Spanish service. The governor of Guatimala employed him on several important occasions. In 1783, he visited the U. States, and then travelled on foot through England, France, Italy and Spain, against which he cherished the bitterest hatred. In 1789, he was at Petersburg, and Catharine endeavored to engage him in her service, but the events in France drew him to Paris. Here he was employed on a mission to Pitt, and, through Péthion's influence, was appointed major-general. Under Dumouriez, he was second in command in Champagne and Belgium, and his skill as an engineer and tactician, united with his uncommon talents, obtained for him the esteem of the republicans in Paris, as well as the respect of the army. When Dumouriez entered Holland, Miranda was directed to besiege Maestricht, but, being unsupported by general Valence, was obliged to abandon the siege. In the battle of Neerwinden, he commanded the left wing: Dumouriez imputed to him the loss of the battle; but the charge was refuted by Miranda, in an able and ingenious defence. Dumouriez and Miranda had both declared against the Jacobins; but the former now became an object of suspicion to Miranda, who communicated his fears to his friend Péthion, then a member of the committee of public safety, and Miranda was ordered to arrest the commander. (See *Dumouriez*.) The Girondists, however, soon fell before the Mountain party, and Miranda was obliged to appear before the revolutionary tribunal. He was not convicted of the charges brought against him, and the fall of Robespierre delivered him from prison. Having, however, become suspected by the directory, he was again thrown into prison, and, in 1797, was condemned to transportation, but fled to England. In 1803, he returned to Paris, and was again banished, for taking part in an opposition to the first consul. General Miranda now devoted himself, with all the energy of his character, to the accomplishment of his long cherished scheme of overthrowing the Spanish dominion in America. Having procured some secret assistance, he sailed from New York in 1806, with one ship and a number of volunteers, and touched at St. Domingo, where he chartered two schooners. On arriving off the coast, the two latter were captured by Spanish *guardacostas*, and he was obliged to escape with his ship. In August, he landed in Venezuela; but his attempts to rouse the inhabitants were altogether unsuccessful, and he found himself compelled to reëmbark. In 1810, he renewed his attempt with more success (see *Colombia*), but was finally obliged to capitulate to the Spanish general Monteverde, who, in violation of the articles of his surrender, treated him as a prisoner. Miranda was sent to Spain, and confined in the dungeons of the inquisition at Cadiz, where he died, after four years' imprisonment. The monks caused his body to be thrown out without burial. Miranda was a man of great energy and sagacity, full of resources, bold, active and intelligent.

Mirandola, Giovanni Pico della, count and prince of Concordia, surnamed the *Phœnix*, one of the brightest ornaments of literature at the time of the revival of letters, born in 1463, was the youngest son of Gianfrancesco della Mirandola and Julia, of the noble family of Boiardo. His youth was marked by an early display of talent, and, being destined for the church, he was placed at Bologna, to pursue the study of the canon law, at the age of fourteen years. Two years were spent in this course, when his growing repugnance to the study, and his inclination to philosophical and scientific subjects, led him to visit the different parts of Italy and France for the purpose of observation, and to attend the most celebrated schools and most distinguished professors. After seven years of the most assiduous application, he went to Rome, and, in 1486, proposed 900 theses on all subjects, which he declared himself ready to defend, according to the custom of the times, in public. He challenged all the learned from all countries to dispute with him, and offered to pay the expenses of the journey to those who came from a distance. No one ventured to appear against him, and the envious endeavored to implicate him in a charge of heresy. Mirandola repelled the charge, in his *Apologia*, a work full of profound erudition. To deprive his enemies of every pretext for their accusations, he determined, although not insensible to love and its pleasures, to lead the most rigid course of life, and to devote himself entirely to letters. In consequence of this resolution, he threw into the fire five books of amatory poems in Italian, the loss of which is much to be regretted. None of his writings on this subject has been preserved, except a commentary on a canzone of Girolamo Benivieni, in which he follows the notions of the New Platonists in respect to love. Having next applied himself to the study of biblical literature, he published the fruits in his *Heptaplus*, a mystical or cabalistic explanation of the history of the creation, in which he derives Plato's doctrines from Moses. Two years after, he published a treatise in ten chapters—*De Ente et Uno*—in which he aimed to unite the opinions of Plato and Aristotle. Mirandola died at Florence, in 1494, where he had lived some time in terms of intimacy with some of the most learned and distinguished men of the age, particularly Lorenzo de' Medici and Politian. At the time of his death, he was employed in great literary enterprises, to which his treatise against astrology must be considered as preparatory. He was considered by his contemporaries a miracle of learning and genius. Paolo Giovio says that the immortal gods had united in him all rare gifts of mind and body. In judging of his works, it is necessary, however, to remember the state of letters at the time when he lived. His nephew Gianfrancesco Pico was a disciple of his, but not equal to his master.

Mire, Noel de; a good engraver of Rouen, among whose works are ornamental engravings accompanying the writings of Rousseau, Voltaire, Boccaccio and Lafontaine. His last works form part of the beautiful *Galerie de Florence*. He died in 1801.

Mirevelt, Michael Janson, a famous portrait painter, born at Delft, in 1568, was the son of a goldsmith. He first intended to become an engraver under Wierinx, but, at a later period, studied the art of painting under a painter named Blocklandt. He is said to have painted 10,000 portraits, and to have received a high price for them. Mirevelt was a Mennonite, of a very amiable disposition. He died in his native city, in 1641. His eldest son, *Peter Mirevelt*, is also esteemed as a painter.

Miriam, the sister of Moses, directed the Hebrew women in their rejoicings after the passage of the Red sea. Having spoken against Moses, on account of his marriage with an Ethiopian woman, she was struck with leprosy, and shut out of the camp seven days. (*Num.* xii.) She died at Kadesh. (*Id.* xx, i.)

Mirkhond, or **Mirchond**. (See *Persian Literature*.)

Mirror. Mirrors are surfaces of polished metal, or glass silvered on its posterior side, capable of reflecting the rays of light from objects placed before them, and exhibiting to us their image. There are three classes of mirrors, distinguishable by the figure of their reflecting surface: they are plain, concave and convex. The reflexion of light by either of these mirrors observes the constant law, that the angle which the incident ray makes with the reflecting surface is equal to the angle of reflection. When a person views himself in a looking-glass, if he measures the size of which he appears on the glass, the image will always be one half his real magnitude; for, as the image appears behind the glass exactly at the distance of the object before it, the mirror will be half way between the person and his image; so that it will cut across the cone which comes from his image to his eye, half way between its base and its apex: the base of the cone is the image seen, the apex is at the pupil of the eye, where all the rays from the image are united in a point. Concave mirrors are those whose polished surfaces are spherically hollow. The properties of these mirrors may be easily understood, when we consider their surface as composed of an indefinite number of small planes, all of which make a determinate angle with each other, so as to throw all the rays to a point. This point is called the *focus* of the mirror, where an image of the object will be formed in an inverted position. The distance of this focal point from the surface of the mirror when the curvature is moderate, will be equal to half its radius. Concave mirrors are of great importance in the construction of reflecting telescopes, in which they are commonly called *specula*. (See *Telescopes*.) The employment of concave mirrors in collecting the heat of the sun's rays from the whole of its surface to a single point, thus accumulating a very great degree of heat, for the combustion and fusion of various natural substances that are infusible in the greatest heat capable of being produced from ordinary fire, may be exemplified, among those of modern date, by the burning mirror of M. de Villette. The diameter of this metal speculum was three feet eleven inches, and the distance of its focus from the surface was three feet two inches. The composition of this metal was of tin and copper, which reflects the light very powerfully, and is capable of a high degree of polish. When exposed to the rays of the sun, by doctors Harris and Desaguliers, a silver sixpence was melted in seven and a half seconds when placed in its focus. A copper half-penny was melted in sixteen seconds, and liquefied in thirty-four seconds; tin was melted in three seconds, and a diamond, weighing four grains, lost seven eighths of its weight. The intensity of heat obtained by burning mirrors or lenses, will always be as the area of the reflecting surface exposed to the sun is to the area of the small circle of light collected in its focus; thus the diameter of the spot of light at the focus of Villette's mirror, was 0.358 of an inch, and the diameter of the mirror, forty-seven inches: hence the area of these circles was as 0.358^2 to 47^2, that is, the intensity of the sun's rays was increased 17257 times at the focal point. The loss of light occasioned in passing through the medium of which the lens is composed, together with that lost by reflection from the surface of mirrors, must, however, be deducted from this theoretical calculation. (For further information, see *Burning Mirrors.*) Concave mirrors afford many curious illustrations of their peculiar properties; for example, when a person stands in front of a concave mirror, a little further from its surface than its focus (or half the radius of its concavity), he will observe his own image pendent in the air before him, and in an inverted position. This image will advance and recede with him; and, if he stretch out his hand, the image will do the like. Exhibitions have been brought before the public, in which a singular deception was obtained by a large concave mirror. A man being placed with his head downwards, an erect image of him was exhibited in its focus, while his real person was concealed, and the place of the mirror darkened: the spectators were then directed to take a plate of fruit from his hand, which, in an instant, was dexterously changed for a dagger, or some other dangerous weapon. Convex mirrors are chiefly employed as ornaments in apartments. The objects viewed in these are diminished, but seen in an erect position. The images appear to emanate from a point behind the mirror: this point, which is its focus, will be half the radius of convexity behind their surface, and is called the *negative* or *imaginary* focus, because the rays are not actually collected as by a concave mirror, whose focus is called *real.**—In the earlier periods, with which history makes us acquainted, mirrors were made of metal: the Egyptians, Greeks and Romans made use of metallic mirrors. Pliny, in his natural history, also mentions the use of obsidian for this purpose. Gold and silver, highly polished, were employed by the Romans for mirrors, which were richly ornamented with precious stones. The forms were various, but most commonly oval or round.

Mischna, or **Misna**; the code or collection of the civil law of the Jews. The Jews pretend that, when God gave the written law to Moses, he gave him also another, not written, which was preserved by tradition among the doctors of the synagogue, till rabbi Juda, surnamed the *Holy*, seeing the danger they were in, through their dispersion, of departing from the tradition of their fathers, reduced it to writing. The Misna is divided into six parts: the first relates to the distinction of seeds in a field, to trees, fruits, tithes, &c.; the second regulates the manner of observing festivals; the third treats of women and matrimonial cases; the fourth, of losses in trade, &c.; the fifth is on oblations, sacrifices, &c.; and the sixth treats of the several sorts of purification. (See *Talmud.*)

Misdemeanor, in law; a crime of a lower nature. *Crimes* and *misdemeanors*, properly speaking, are mere synonymous terms, though, in common usage, the word *crime* is made to denote such offences as are of a deeper and more atrocious dye; while smaller faults and omissions of less consequence, are comprised under the gentler name of *misdemeanors* only.

Miserere (Latin, *have mercy*); the name of a celebrated church song, taken from the fifty-seventh psalm, beginning, in the Vulgate, *Miserere mei, Domine*. The *miserere* forms part of certain liturgies, and various great composers have taken it as a subject. The *miserere* of Allegri (q. v.) is particularly famous; and this alone, sung by the papal choir, in the *capella Sistina*, in the Passion week, would repay the trouble of a visit to the "eternal city."—

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* The reflecting surface of a cylinder has been occasionally used in optical amusements for giving to *anamorphoses* (distorted or deformed pictures) regular shapes, when reflected from such surface.

Miserere is also the name given to pictures representing the dying Savior.—A terrible disease, produced by an obstruction of the bowels, is also called by this name.

Misericordia (mercy; in Greek, ἔλεος) was personified as a deity. She had a celebrated altar in the market-place of Athens, constituting an asylum.—*Misericordias Domini* is the name given to the second Sunday after Easter, because the mass for this day begins with *Misericordias Domini cantabo in æternum.*—*Misericorde* (French) was also the name of the dagger of the knights in the middle ages. Fauchet derives its name from its putting men out of pain when irrecoverably wounded, or from the sight of it causing the vanquished to cry out for mercy.

Mishna. (See *Mischna.*)

Misitra, or **Mistra**; a city of Greece, in the Morea, capital of the department of Laconia. It lies nearly a league from the ruins of Sparta, which have supplied materials for its construction. Before the Egyptian expedition to the Morea, it contained 6000 inhabitants and several churches, literary institutions and manufactories; it is now a heap of ruins, inhabited by about 150 families.

Misletoe (*viscum album*); a European plant, growing parasitically on various trees, and celebrated on account of the religious purposes to which it was consecrated by the ancient Celtic nations of Europe, particularly when it was found growing on the oak. At the time of the winter solstice, the Druids, who were the priests and magistrates of these people, went into the forests accompanied by the populace, and, at the foot of an old oak bearing this plant, built an altar, sacrificed victims, and performed various other religious rites and ceremonies. Some relics of this superstition still remain in France; and it is also the custom in England to hang up branches of this plant at Christmas, mixed with other evergreens. From the same cause, for a long time, it sustained a high reputation as a medicine. It is a jointed, dichotomous shrub, with sessile, oblong, entire, and opposite leaves, and small, yellowish-green flowers, the whole forming a pendent bush, from two to five feet in diameter, and, in winter, covered with small white berries. These berries are very glutinous, and contain a single heart-shaped seed. The roots of the misletoe insinuate their fibres into the woody substance of trees, and the plant lives entirely at the expense of their sap, as the stems and leaves are incapable of absorbing moisture. All the attempts which have hitherto been made to raise this plant from the earth have failed. Though the misletoe is common enough on certain species of trees, it is very seldom found on the oak, and a specimen of this is preserved in France as a great rarity. Birdlime is made from the berries and bark, which are boiled in water, beaten in a mortar, and washed; but this article is usually manufactured from the bark of the holly. The American misletoe grows on trees from about lat. 40° to the gulf of Mexico, and also in the West India islands.

Misnomer, in law; a misnaming or mistaking a person's name. The Christian name of a person should always be perfect; but the law is not so strict in regard to surnames, a small mistake in which will be overlooked.

Misprision; a neglect, oversight or contempt (from *mespris*, French, contempt). Thus concealment of known treason or felony is misprision. In a larger sense, *misprision* is taken for many great offences which are neither treason, nor felony, nor capital, but very near them; and every great misdemeanor which hath no certain name appointed by law is sometimes termed *misprision.*

Missal (from the Latin *missale*), in the Catholic liturgy; the book which contains the prayers and ceremonies of the mass. It was formed by collecting the separate liturgic books formerly used in the religious services, particularly the *Oratorium*, *Lectionarium*, *Evangeliarum*, *Antiphonarium*, the *Canon*, &c., for the convenience of the priest. The greater part of these prayers and ceremonies are very ancient, and some of them have come down from the times of the popes Gelasius I and Gregory the Great (q. v.); some are even older. Considerable deviations and corruptions, which had, in the course of time, crept into the Missal, induced the council of Trent to request of the pope a revision of it. Pius V, in 1570, required the Missal, which had been revised under his direction, to be adopted by the whole Catholic church, with the exception of those societies which, for more than two centuries, had followed another ritual with the consent of the papal see. This form of the Roman Missal has been retained until the present time; the changes made by pope Clement VIII and Urban VIII (the latter under the direction of Bellarmin) extending little beyond alterations of single expressions and the addition of a few new masses, which are by no means among the best. The earliest printed missal is the *Missale per totius Anni Circulum More Ambrosiano compositum* (Milan, 1475, fol.), which was followed by the *Missale secundum Consuetudinem Romanæ Curiæ* (Rome, 1475). These, and earlier ones, composed for particular churches, especially if on parchment, are objects of bibliomania. (For the Bedford Missal, see *Bedford.*) The latest edition of the *Missale Romanum* is that of Dijon and Paris (1828, 4to.).* (See *Liturgy.*)

Missal, in German, is also the name of the largest letters, because formerly the *missalia,* or mass-books, which contain the songs and ceremonies of the mass, were written or printed with them. It is the same with the French *canon,* which probably derived its name from being early employed on some work relating to the canons of the church.

Missalia (*Latin*); the money paid to a clergyman for a mass read for the dead, at a Catholic funeral.

Missions; Missionaries. Even in the early ages of Christianity, it was usual for Christians, either at their own impulse, or at the desire of the community, to go into neighboring and distant lands, to preach the gospel; and, except in a few particular cases, Christianity has been propagated, not by arms, but by persuasion. Thus Augustine (q. v.), with 40 associates, was sent by Gregory the Great, to preach the gospel among the wild Saxons of Britain (597). The German church was also established, in the eighth century, by similar preachers of the gospel, who were afterwards called *missionaries.* More has been done for the support of missions by the Catholic church than by the Protestants. Various reasons may be assigned for this: the interests of the papal hierarchy, in this case, coincided with the interests of religion; and, before England had acquired the superiority by sea, Catholic Europe was more closely connected with the other parts of the world than the Protestant countries were; moreover, the Catholic church had monks, whom the pope could send wherever he pleased; and, finally, it was more wealthy than the Protestant church (see *Propaganda,* and *Jesuits*); not to mention, that zealous Catholics, persuaded that this was the only saving faith, had a much stronger incitement to undertake the difficult work of conversion than Protestants. The principal missions of the Catholic church, are those to China, the East Indies, and Japan. In the last named country, though Christianity had once made considerable progress, it is now entirely extirpated. But in China and on the Coromandel coast, the settlements established for the diffusion of Christianity still continue. The events which followed the French revolution contracted the funds of the missions, and checked their activity. According to the *Nouvelles Lettres édifiantes des Missions de la Chine et des Indes Orientales* (Paris, 1818—20, 5 vols.), there are yet three bishoprics in China, endowed by the crown of Portugal—those of Macao, Pekin and Nankin. The bishop of Pekin, however, lives at Macao, because no missionary is permitted to reside in Pekin, except the mathematicians, physicians and artists in the service of the court. Besides the seven provinces which belong to these three bishoprics, there are other provinces of the Chinese empire belonging to the mission of the *évêques vicaires apostoliques.* Of the state of the Catholic mission in the East Indies, the abbé Dubois, a French missionary, in his Letters on the State of Christianity in India, &c., gives a not very encouraging account. Christianity appears to have made more progress in East Tonquin, where there are 780 churches and 87 monasteries. China and Tonquin together contain 380,000 Christians. According to the missionary reports up to Sept. 24, 1824, there were in China alone 46,287 Christians, 26 Chinese and 3 European priests, and 29 schools for boys, and 45 for girls. In 1824, a seminary was also instituted, in which 12 scholars are taught Latin. The Russian ecclesiastical mission, established in China in 1727, is not intended for the conversion of the Chinese, but for the instruction of young Russian clergymen in the Chinese language. In 1822, a new Catholic mission was instituted in Thibet. A princess, whom an Italian had converted to Christianity, appointed him her first minister, and requested of the *Propaganda* 80 missionaries for the conversion of her subjects. Five Capuchins were accordingly sent. The splendor of the Catholic worship attracted and won over the gentle and ignorant children of nature in Brazil, Mexico, the countries lying on the Andes, and Paraguay, and several missions have, therefore, been introduced there. The new republics propose to restore them as schools. The Catholic church has also shown great zeal in endeavors to win back the favor of the people, and to restore the lost influence of the church in revolutionized France and Italy. The *theocratic faction*, as it was called, which included state and church in its plans of reform, coöperated in these attempts. Preparatory to the jubilee year (1825), there were missions in Rome, which were devoted to religious exercises, and which proclaimed absolution. According to the *Almanac du Clergé de France pour l'An* 1824, a congregation of missions was established in France as early as 1816, which, unlike the old French seminary for foreign missions (in China, Cochin-China, Tonquin, Siam and Pondicherry), was destined solely to restore the Roman Catholic religion in France to its former importance. Besides this, there was a *congrégation du St. Esprit*, destined for the service of the hospitals and missions. For this domestic mission in France, a *maison principale*, with a seminary for novices, was instituted, which, in some dioceses, furnished priests to the destitute parishes. To accomplish, at the same time, a political and religious restoration, a crowd of Jesuits had entered France with the Bourbons; they were called *pères de la foi*; they educated a great number of pupils, not only in theology, but in other branches of knowledge, and, by this means, kindled a religious enthusiasm, which, in some instances, amounted to fanaticism. In the seminary of St. Sulpice, at Issy, near Paris, such enthusiasts were educated as missionaries. They lived by the most rigid rules, and studied with great fervor. As the *fathers of the faith* could procure little aid from the bishops in general, they formed a sort of separate church, and depended upon the *aumonerie*, which was restored much upon the same footing on which it existed under Louis XVI. The friends of this religious connexion took advantage of that tendency to mysticism which prevailed in Europe, and which was principally observed among the women—a consequence of the revolution, which shook many weak minds. The missionaries sent by the congregation were often merely fanatical preachers of repentance, and made the greatest impression upon the female sex. Their religious exercises, in the churches at Paris and other places, repeatedly produced great disturbance of the public peace. In 1824, the number of missionaries in their 372 chapels amounted to 379. These *pères de la foi* were enemies of the charter (because it established religious toleration), of a representative government, and even of the Gallican church. The provincial of the Jesuits, at Paris, who had a college in the village of Mont Rouge, near Paris, exercised a sort of secret spiritual government, which extended over several provinces of the kingdom, principally the southern and western, and was connected with the Spanish apostolical junta.—Upon the state of the Catholic missions, see the *Choix des Lettres édifiantes écrites des Missions étrangères* (2d edit. of the above-cited *Lettres édif.*, &c., Paris, 1824). They consist chiefly of geographical, historical, political and literary information, relative to the missionary countries, China, India, the Levant, and America.—Among the Protestants who have distinguished themselves in the work of missions, are the British, the Danes, and the Germans. In 1699, the Society for promoting Christian Knowledge was founded in England; and, in 1701, the Society for the Propagation of Christianity in Foreign Parts. In 1704, the richly endowed Royal Danish Missionary Society was founded by Frederic IV, which still continues its exertions at Tranquebar, on the Coromandel coast, and in whose service Knapp, Ziegenbalg, Franke, and others, distinguished themselves. Franke, in Halle, took the first steps towards the education of missionaries; Ziegenbalg established the first society, in 1707; and the first report appeared at Halle, in 1718. In 1794, the Society for the Conversion of Negro Slaves in the West Indies was established, among whose undertakings the sending of Christian preachers to Southern Africa and Australia is particularly worthy of note. The United Brethren began their missions in 1732, and soon sent missionaries into all parts of the world. Missionaries have not only been sent to the heathen, but also to ignorant and mistaken Christians; and the whole system has, undoubtedly, contributed much to the diffusion of the gospel, though it cannot be denied that, in the choice of persons and means of instruction, and in the objects proposed and the institutions founded, many mistakes have been committed, through partial views or misdirected zeal. As the English find Christianity the most effectual means of civilization, particularly in their colonies, the government has aided the missionary societies in their objects. Among the religious associations in Great Britain, which collect yearly about £400,000 by voluntary contributions, are the following: 1. The London Missionary Society, founded 1795, which has 253 branches in all parts of the world. 2. The Church Missionary Society, for Africa and the East, which supports 80 missionaries in 45 places. 3. The Society for the Propagation of the Gospel in Foreign Parts, which has confined itself principally to North America, and employed, in 1823, over 80 missionaries. 4. The London Auxiliary Society in Aid of the Baptist Highland Mission. 5. The Home Missionary Society, founded in 1819, has 25 missionaries preaching in 206 villages; 50 Sunday schools, containing 2868 children; and labors to form village libraries. This society was very necessary, as there were found to be 314 villages with 110,344 souls, in England, destitute of religious instruction. 6. The London Association in Aid of the Moravian Missions, which employs 161 missionaries. 7. The Wesleyan Methodist Missionary Society, which has more than 50 regular missionaries, and over 25,100 proselytes, principally among the slaves in the colonies. Its schools contain over 8000 children. It also maintains missionaries at Paris, and in the south of France. 8. The Baptist Missionary Society (1792) has more than 10,000 children, in the East Indies, under its direction. 9. The Missionary and Tract Society of the New Jerusalem Church, founded in 1821. 10. Continental Society incorporated in 1818; they have 11 missions. 11. A London Society for promoting Christianity among the Jews, which sends missionaries to Poland and Holland; and a Ladies' Missionary Society instituted for similar purposes, which has twelve missionaries, among whom are five converted Jews. The former has in its service a German, Joseph Wolf, of Halle, descended from Jewish parents, who was converted to the Catholic church, instructed in Tübingen, and at Rome, in the *Seminarium Romanum*, where, having expressed doubts of the infallibility of the pope, he was thrown into prison: he then left the Roman Catholic church, and, without acknowledging himself a member of any established church, entered, under the character of a Biblical Christian, into the service of this society, which sent him to Asia: at Bassora, he had discussions with the Sabians, or Christians of St. John, which are printed in the Jewish Expositor. 12. The Edinburgh Missionary Society, founded 1796, has missions in Tartary, and in the Susoo country, in the neighborhood of Sierra Leone. From 1701 to 1817, 11 missionary societies (5 in England; 1 in Scotland; 1 in Denmark; 1 in Germany—that of the United Brethren; 3 in the U. States) founded 10 missions, which, in 1819, occupied 439 missionaries, most of whom belonged to the United Brethren, and 303 of whom were supported by the British societies, 85 by the German, and 37 by the societies in the U. States. They also supported a great number of physicians, farmers, laborers, and their families. More than 150 missionaries labored in Asia, above 70 in Africa, and above 200 in America. In 1824, the whole number of missionaries exceeded 500, of whom 370 were supported by the British. In Paris, the Calvinistic and Lutheran churches united to form a missionary society. Their object, however, has been not so much the conversion of the heathen as the instruction of poor children, and they have already opened schools for several thousand children. In Germany, where the United Brethren educate most of the missionaries for their own and other missions, there are also societies for the education of missionaries in Berlin, Basil, and other places, which obtain their funds for instruction by voluntary contributions. The Berlin Missionary Union, established by the king of Prussia in November, 1823, numbered then over 300 contributors. The British societies also support an institution for the education of missionaries at Sierra Leone. Among the means by which missionary societies aim to accomplish their objects, one is the translation and distribution of the Bible. (See *Bible Societies*.) Although the judgment of the missionaries, especially in the East Indies, has not always been equal to their zeal, yet the vital power of Christianity has displayed itself in an extraordinary manner in many countries. The inhabitants of the Society islands, particularly those of Otaheite (q. v.), have embraced Christianity, and much progress has also been made in the Sandwich islands by the American and English missionaries, and books have been published in their language. Similar results have attended the labors of the Wesleyan Methodists, in the East Indies, as, for instance, at Trincomalee and Colombo, on the island of Ceylon. A school has been established by them, for the gratuitous instruction of poor Cingalese children. Among the most active promoters of Christian civilization, in the British East Indies, by the establishment of missions and schools, was Dr. Middleton, bishop of Calcutta, who died in 1822. Different sects have supported missionaries in the same places, as, for instance, in Madras, Calcutta and Bombay, without any interruptions from sectarian disputes, and have assisted one another with the utmost cordiality. For the better promotion of their common object, the Danish East Indian mission has even given up to the English Society for the Promotion of Christian Knowledge, 11 societies of native Christians about Tranquebar, in establishing which the Danish missionary Schwartz had been very active. The English Bengal Missionary Society has also been very active in the East Indies. According to its fifth report (1823), it had erected four chapels and schools. Attached to one of the schools there is a printing-office, at which 117,000 copies of the Holy Scriptures, in English and the native tongues, have been printed at the expense of the society. The condition of the chief Danish missionary society, at Serampore, in Bengal, on the Hooghly, which attends particularly to the instruction of heathen and Mussulman boys, is represented to be favorable. From their printing-office, translations of the whole or parts of the Holy Scriptures have been issued in 27 languages of Central India. Among the English missionaries at Serampore, Marshman the celebrated author of the *Clavis Sinica*, has particularly distinguished himself by his researches in Hindoo literature. The great number of languages, especially in Malabar, is a great impediment to the success of the missionaries, who, it is desirable, should be able to operate by precept as well as by example; and many local obstacles—the power of the Bramins, the division into castes, &c.—are also impediments in their way; but their schools, and the simplicity of their lives, tend to improve the character of the natives. Of South Africa, where the chief missionary station (since 1802) is Bethelsdorf, and where the United Brethren now support missions at three places (see *Latrobe*), an agent of the British Missionary Society—Campbell—has given an account (London, 1815). Missionaries have sometimes united with their main object an attention to the ethnography and geography of the country, which deserves the highest commendation—such as Loskiel in North America, and the Danish missionary Monrad, who was in Africa from 1805 to 1809, and published Materials for a Description of the Coasts of Guinea (Copenhagen, 1822). The missionaries have also rendered great service to the study of languages, as, for example, in the work of Blumhardt (inspector of the missionary school at Basle), Comparative Observations upon the Connexion between the Indian Languages, which are almost all related to the Sanscrit (Basle, 1819). In the conversion of the South sea islanders, the American and English missionaries have been very successful. The spiritual head of Christian Australia, Marsden, is one of the most intelligent missionaries. He does not attempt to convert savages without preparation, but provides for their instruction, and endeavors to guard against the new vices which attend the beginnings of civilization. (See *New South Wales*, and *New Zealand*.) Among the latest missions of the United Brethren (see *United Brethren*, and *Greenland*), that established among the Calmuck tribes deserves to be mentioned. They sent two missionaries, Zwick and Schill, from Sarepta, in 1823, to the Calmucks, among whom, by the aid of the Russian Bible Society (which caused the Bible to be translated into Calmuck), they distributed the Holy Scriptures. Their report is given in the Biblical Journal, published at Petersburg (1824). The great opposition of the Calmuck priests, however, induced the khans to threaten an emigration, and the mission was given up from political views. On the other hand, the missionary Corruthers exerted himself, with great zeal, in the conversion of the Tartars in the Crimea, and a new station has been established on the Caucasus. The whole number of missions of the United Brethren cost, in 1823, about $33,000, besides the support of 55 retired missionaries and 53 children. The society receives the largest contributions from Holland, Denmark and Sweden. Concerning the conversion of the Jews to Christianity, in London, Berlin, Petersburg, Dresden, Breslau, Minden, Kőnigsberg, Posen, &c., the first public report of the Berlin Society, established in 1822, appeared in 1824. It has issued a stereotype edition of the New Testament, in the Hebrew language, and sent a missionary to the Polish Jews, who had succeeded in gaining attention in more than one synagogue. There are, at present, in Germany, over 30 missionary and auxiliary missionary societies, who are connected with the missionary society of Basle. The Basle society issues a lithographed correspondence; other societies, at Hamburg, Leipsic, Berlin, &c., publish yearly reports; and others, as at Stuttgart and Kőnigsberg in Prussia, publish missionary journals. In St. Gall there is a ladies' missionary society. The great missionary school established at Basle (1816) not only educates the pupils (of whom, in 1824, there were 33, in four classes, instructed in all departments of theology; in the explanation of scriptural passages from the Hebrew and Greek; in the Latin, English and Arabic tongues; in the comparison of the Koran with the precepts of the Bible; in geography, arithmetic, geometry and astronomy; in rhetoric, singing and drawing) for the English and Dutch missions, but has also, since 1822, maintained missionaries at its own expense, at the stations on the Caspian and Black seas. One of these missionaries, Aug. Dietrich, has undertaken, with Mr. Macpherson, the superintendence of the Persian translation of the New Testament, and has also superintended the publication of several biblical extracts and precepts into the Persian language, and translated the work of Grotius on the truth of the Christian religion into Arabic. The missionary school established at Berlin, under the direction of the preacher Jänicke (1800), has already sent more than 20 pupils to the East Indies, Sierra Leone and the Cape. The Russian government has employed, in the German colonies planted about 30 years ago, from Odessa to Gandscha in Georgia, and Astrachan, missionaries from Basle, as colonial preachers, who have the spiritual charge of the Germans, and endeavor likewise to operate on the adherents of the old Eastern sects, particularly the Armenians, and to gain access to the Mohammedans among the Persians. The translation of the New Testament into modern Persian, by the missionary Martin, has been distributed, and eagerly, but secretly read. To effect these objects, the Russian emperors have conferred privileges, not only on the Scottish missionary colonies at Kara, but also on the evangelical missionary colony established (1822) in the Caucasian village of Schuschi, principally inhabited by Armenians. The Moravian United Brethren now employ 171 preachers of the gospel, in 33 missions in the West Indies, North America and South Africa. According to the 72d number of the Transactions of the Evangelical Missionary Societies in the East Indies, there are now upon the main land of India 49 missions, 12 on Ceylon, and three on other islands. In Ceylon there are 75 missionary schools, with more than 4000 scholars. The principal missionary societies in the U. States are the following: American Board of Foreign Missions, founded in 1810; income, in 1829—30, $106,928: American Baptist Board of Foreign Missions, founded in 1814; income, 1830, $12,000: Board of Missions of the General Assembly, founded 1818; income, 1830, $12,632: Methodist Missionary Society (1819), income, 1830, $13,128; American Home Missionary Society (1826), income, 1830, $33,229. The whole income of the various Missionary, Tract, Education, and Bible societies, for 1830, was about $500,000. The American Board of Foreign Missions has six stations in India, one at Canton, four in the Mediterranean, six in the Sandwich islands, and 35 among the Indians of the U. States, employing 59 missionaries, and 175 assistant missionaries. The board has printing establishments at Bombay, Malta, and in the Sandwich islands, from which the Bible has been issued in eleven languages. The number of scholars in their schools is 47,550. The expenditure during the 20 years from its foundation was $915,750. The annual reports of the different societies contain all the necessary information relative to their means and success. Besides the works already referred to in the article, the reader may consult Lord's History of Missions, and Brown's History of the Propagation of Christianity.

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* Baron Reichlin Meldegg, doctor of theology, and professor of ecclesiastical history at the university of Freiburg, in his Proposals for the Reformation of the German Catholic Church, observes, "Some of the masses of the Roman Missal are founded on stories not sufficiently authenticated, some on evident fables, for instance, the mass of the *Lancea Christi,* of the *Inventio Crucis,* of several saints, &c. Others contain prayers gross in their expressions, as, for instance, *Corpus tuum, Domine, quod sumsi et sanguis, quem potavi, adhæreat visceribus meis, et fac, ut in me non remaneat scelerum macula, quem pura et sancta refecerunt sacramenta.* On the other hand, how simple, beautiful and touching is the prayer immediately after the administration of the host, *quod ore sumsimus, Domine, pura mente capiamus, et de munere temporali fiat nobis remedium sempiternum!*—See *Wider Römische Verketzerungssucht* (Leipsic, 1831), p. 72. Some maintain that the bishop, with his clergy and the consent of government, has the right to change the missal.

Missilonghi. (See *Missolonghi.*)

Mississippi, the largest river of the U. States, and one of the largest in the world, rises in about lat. 49°, and lon. 96° 47′, and flows south-south-east till it falls into the gulf of Mexico, in lat. 29° 0′, and lon. 89° 30′. The length is usually given at 3000 miles; some make it less. We speak without reference to the great branch of it called *Missouri.* The country in which the most northern branches of the Mississippi have their rise, is an elevated table land, abounding with marshes and lakes, that are filled with wild rice. From the same plateau flow the numerous branches of Red river and other streams, which fall into lake Winnipeck, and thence flow into Hudson's bay. It is not easy to decide which of the numerous small lakes of this table land should be honored as the principal source of the Mississippi, for travellers are not agreed in determining which of the numerous streams flowing from these lakes is the main river. We follow Mr. Schoolcraft's map in giving the latitude and longitude of La Bush lake to the extreme source of the Mississippi. After a winding course of nearly 700 miles, its waters are precipitated over St. Anthony's falls, a cataract of 16 or 17 feet perpendicular. About 12 miles above these falls, it receives St. Peter's river from the west, which is regarded by some as the principal river. The width of the Mississippi, for 12 miles above St. Anthony's falls, is about half a mile. Below the falls, it is contracted, for some distance, to 200 yards. The large and navigable tributaries which it afterwards receives, are so numerous that we can only mention a few of the principal. About latitude 44°, the St. Croix comes in from the east, said to be navigable by boats 200 miles. In 42°, the Wisconsin, also from the east, opens an easy communication with the waters which flow into lake Michigan. Near 40°, on the west side, is the Des Moines, 150 yards wide, and navigable by boats for a great distance. In 39° enters the Illinois from the east, 400 yards wide, navigable by boats for more than 300 miles. A little below 39°, the mighty Missouri comes in from the west, which is both longer and broader than the Mississippi above their junction, and imparts its own character to the stream below. In 38°, the Kaskaskias enters from the east, which traverses a most delightful country, and is navigable more than 100 miles. Between 37° and 36°, the magnificent Ohio also comes in from the east. This is much the largest eastern branch. On the west side, between 35° and 34°, is the St. Francis, which is 200 yards wide, and is supposed to be navigable 300 miles. White river enters on the same side, in about 34°, and is supposed to be 1200 miles long. Between 34° and 33°, the Arkansas comes also from the west. It is 500 yards wide, and supposed to be 2500 miles long. Between 33° and 32° is the Yazoo, on the eastern side, between 200 and 300 yards wide. A little above 31°, the Red river comes in from the west. It is nearly as long, and brings as much water as the Arkansas. Here the Mississippi carries its greatest volume of water. Even above Red river, in high floods, water escapes from the Mississippi on the west side, in many places, which never returns; and below Red river, there are many and large outlets, but no considerable streams flowing into it. Only four or five miles below Red river, the Atchafalaya carries off, at some seasons, as much water as the Red river brings in. A little below the town of Baton Rouge, on the eastern side, flows out bayou Manshac, or Ibberville river, and passes through lakes Maurepas, Ponchartrain and Borgne, to the gulf of Mexico. Bayou Plaquemine and bayou La Fourche flow out from the western side before we come to New Orleans; but there is no outlet below the city till we arrive at the divisions which form the four mouths of the Mississippi. From the falls of St. Anthony to a few miles below the river Des Moines, the Mississippi is about half a mile broad. Below the rapids which occur at this place, its average breadth, before it receives the Missouri, is a full mile; and its transparent waters, its gentle current, the number and beauty of its islands, the variety and magnificence of the natural scenery upon its borders, render it admirable beyond description. Its current here is about two miles an hour, and its average depth is about four feet. Where the Mississippi receives the Missouri, it is a mile and a half wide. The mouth of the Missouri is about half a mile wide. When these are united, they constitute a stream that is about three quarters of a mile in breadth, very deep, with muddy waters, and a furious, boiling current. Its average width, during the remainder of its course, does not exceed a mile. The influx of the other mighty rivers only increases its depth and the boiling and whirling motion of its waters. Its medial current is about four miles an hour, but it is often much greater. We know not that it has been sounded in such a manner as to justify any estimate of its average depth. At Natchez, about 400 miles from its mouth, we have frequently heard it stated that its depth is found to be from 100 to 150 feet. Between New Orleans and its mouths, we have seen a large anchor dropped three times by a vessel descending with the current, at places far distant from each other, and it did not reach the bottom, in either case, with less than 60 fathoms of cable. In estimating the width of the river, we refer to the space between the banks of its regular channel. At every flood, it overspreads a vast country, principally on its western side, which is from 10 to 50 miles in breadth through the last 500 miles of its course; and most of the water which overflows below Red river goes to the gulf of Mexico, without returning to the river. The country thus overflowed is generally without any habitable spots, but is covered with cypress, cotton-wood, or coarse grass; and its waters abound with alligators. After the Mississippi receives the Missouri, its course is so serpentine, as to present very few "reaches," or places where it is so straight, that an extent of three or four miles can be seen at one time. In many places, the low alluvial tract on its borders is 30 or 40 miles in breadth. The boundaries of this river-valley are called *bluffs;* and these are often very steep, and sometimes 200 or 300 feet in height. In several places, the river ranges, for a considerable distance near these bluffs, alternately on one side and the other; and, in a few places, it leaves the whole alluvial tract on one side. From the sources of the river to the mouth of the Missouri, the annual flood ordinarily commences in March, and does not subside till the last of May; and its medial height is 15 feet. Between the Missouri and the mouth of the Ohio, the annual flood is 25 feet. For a great distance below this point, it is 50 feet; but it subsides above Natchez, and thence gradually to the mouth of the river. At Baton Rouge it is about 30 feet, and about 12 at New Orleans. Between the Missouri and Ohio, the most shallow parts of the channel have six feet of water when it is lowest. Thence to the St. Francis, there are several shoal places, where, at low water, pilots are perplexed to find a sufficient depth. Below that point, there is no difficulty for vessels of any draught, except to find and preserve the right channel. There are no tides in the Mississippi. A variation of a few inches in the height of the water is generally observed during the night, and sometimes during the day; but even at the very mouths of the river, the water is at all times fresh, and no ebb and flood are seen corresponding with those of the sea. The muddy waters of the river are perceived by those who approach it, when the mariner is still out of sight of land. It will be seen from the description here given, that the Mississippi is not to be estimated by its apparent magnitude, but by the prodigious number and size of the rivers whose waters it receives. The immense valley of which it receives the waters, extends from the Alleghany to the Rocky mountains, and from latitude 49° to the gulf of Mexico, in 29°. Its navigation is at all times attended with some danger, on account of the raging power of its current, and the numerous trees which it dislodges on its banks, and bears away in its tide. Steam-boats are admirably fitted to avoid these dangers; and the navigation above New Orleans is every year becoming more confined to them. Flat boats still bring down much produce, but no other vessels than steam-boats are often seen ascending.—For a more full description of this mighty river, and of the Mississippi valley, we with great pleasure refer the reader to Flint's Geography of that country. A considerable part of this description has been selected from that excellent work.

MISSISSIPPI; one of the U. States of America, between 30° and 35° N. lat., and 88° and 91° W. lon. Its average length is about 300 miles, and its average breadth 160; square miles, 45,760. It is bounded on the north by Tennessee, east by Alabama, south by the gulf of Mexico and Louisiana, and west by Louisiana and the Mississippi river. Mississippi and Alabama constituted one state till 1817. Population of both in 1800, 8,850; in 1810, 40,352. Population of Mississippi alone in 1816, 45,929; in 1820, 75,448; white males, 23,286; white females, 18,390; slaves, 32,814: persons engaged in agriculture, 22,033; in manufactures, 650; in commerce, 291; militia, 5,292. In 1830, there were 38,497 white males; 32,121 white females; 33,072 male slaves; 32,587 females slaves; 292 free colored males; 237 free colored females; total, 136,806. There are several distinct ranges of hills, of moderate elevation, besides a singular succession of eminences called *bluffs*, which, in some cases, approach to the river, and at other places, are seen several miles from it. On the border of the river are those called *Walnut Hills*, *Grand Gulf*, *Natchez*, *White Cliffs* and *Loftus Heights*. Two ranges of hills divide the state nearly in its whole extent, and separate it into sectional divisions. In advancing from the bottoms of the Mississippi, there is every where, at a greater or less distance from the river, an appearance of bluffs, which, when mounted, spread out into a kind of table surface, waving agreeably; but, in many instances, the richest table lands have precipitous benches, which expose the land to be washed, and divided by deep ravines. In the northern part of the state, inhabited by the Cherokees and Choctaws, the land rises into pleasant and regular undulations. The soil is deep, black, and rich; and, in its natural state, both here and in the more southern parts of the state, much of it is covered with cane-brake. The country inhabited by the Chickasaws, in the north-west part of the state, is charmingly variegated with swells and valleys of great fertility, and abounds with fine springs. In the lower parts of Mississippi, bordering on the river, neither rocks, stones of any size, nor even gravel, are often seen on the surface of the ground. Some places are exceptions to this remark, but, in other parts, a person may perform a day's journey without finding any stones which have not been brought from distant places. In general, the surface of this state is most agreeably diversified with ridges, hills and valleys, and the soil is remarkably fertile. The Mississippi river washes the whole western border of the state. Following its very meandering course, this distance is about 700 miles. The curves of the river often bring it back with very little progress, after a course of seven or eight leagues. The greater part of this long line of river coast consists of inundated swamps, seldom seen except by people travelling on the river. These swamps are generally covered with dense forests. The Yazoo is the largest river that has its whole course in this state. The Pearl is next in importance, and traverses the centre of the state from north to south. Some legislative efforts have been made to improve its navigation. The Pascagoula rises in lat. 33°, and has a course of 250 miles before it enters the gulf of Mexico. It is capable of considerable navigation. At its mouth, it widens into an open bay, on which stands the town of Pascagoula, whither many people from New Orleans resort during the sickly months. The Big Black has a course of 200 miles, and is navigable for boats 50 miles. It enters the Mississippi just above Grand gulf. The Homochitto is also a considerable river, and flows into the Mississippi above fort Adams. The other rivers and creeks are comparatively small. The quantity of land embraced within the state is 31,074,234 acres. Of this, the Indians still claim 11,514,517 acres, and the U. States claim 16,885,760 acres; leaving only 2,673,957 acres properly belonging to the citizens of the state. Mississippi has only about 30 miles of sea-coast, and has no harbor except Pascagoula. Along the coast are a few islands of little importance. Back from the coast, the country, for a considerable distance, is a sandy, level, pine forest; but this part of the state is healthy, and the timber is very valuable. The climate of this state is generally best suited to the growth of cotton. Its western border is so much exposed to inundation, that it cannot be expected to be very healthy until levees are raised to keep the great river within its proper banks. In the most fertile parts of the state, the forests present an immense growth of oak, hickory, lime, sassafras, cotton-wood, magnolia, poplar, and other valuable trees; and the swamps abound with cypress. In moist land, the trees are covered with long moss, hanging often five or six feet from the branches, and giving to the forests a very singular and rather gloomy appearance. The palmetto is seen in the southern section, and the family of laurels in various parts. The laurel magnolia (*magnolia grandiflora*) is frequently seen in great perfection; and the forests abound with beautiful flowers, which remind the northern traveller that he has entered upon a new climate. The sugar-cane grows only on the southern borders of the state. The orange and the live-oak are principally confined to the lower waters of the Pascagoula and Pearl rivers. In the middle regions, figs, tobacco, maize, sweet potatoes, rice, indigo, squashes, melons, plums and peaches will grow well; but excepting maize, peaches, melons, potatoes, and squashes, they are but little cultivated. Grapes of various kinds grow wild, and the vines are seen, in great numbers, hanging from the branches of the highest trees, like the ropes of a ship. Many of them are two or three, and some are six or eight inches in diameter. Almost every species of the grape would probably come to maturity in this state. But the principal attention of the Mississippians is directed to the growth of cotton. This is the grand staple of the state. Although its price has diminished nearly two thirds within a few years, yet it is more profitable than any other production. Most of the good planters raise Indian corn enough for their own use, and also raise hogs enough to supply them with bacon. These are the principal and most wholesome articles of food for this climate, but the wealthy planters are supplied with an abundance of the necessaries and luxuries of life. Apples and pears grow imperfectly in a few places. Probably they might flourish on some of the northern highlands. Natchez is much the largest town, and the principal seat of commercial transactions. Monticello is a pleasant, flourishing village on Pearl river, and was lately the seat of government. Jackson, near the head of Pearl river, has been selected as the permanent seat of government. It has a central, healthy and pleasant situation, but has not yet many inhabitants. Vicksburg, below the Walnut Hills, on the Mississippi, has risen up within a few years, and has already become a place of great trade. Greenville, Woodville and Winchester are flourishing villages. Gibson Post is a village of considerable importance; it is situated on bayou Pierre, about 35 miles above Natchez. Shieldsborough, on the west side of the bay of St. Louis, is often resorted to by the inhabitants of New Orleans during the sickly months. Warrenton is another thriving village on the Mississippi, from which large quantities of cotton are exported. There are ample public funds for the endowment of schools, but the blessings of education are not generally diffused. The legislature has done little towards requiring the establishment and support of suitable schools. This is also true of most of the Southern and Western States; and a large part of the children are consequently but imperfectly educated. An institution, called a college, has been incorporated at Shieldsborough. Jefferson college is at Washington, six miles from Natchez. Schools of good reputation have been supported at Natchez, Woodville and Monticello. The principal religious denominations are Methodists, Baptists, Presbyterians, Catholics and Episcopalians. The principal tribes of Indians are the Choctaws and Chickasaws. The former are estimated at 4000; the latter at more than 20,000. This state was included within the country which was discovered and possessed by the French, who formed a settlement at Natchez about the year 1716. In 1763, it was ceded to the English with the rest of the French possessions east of the river. There were few white inhabitants before the end of the last century. In 1798, the country was erected into a territorial government, and into a state government in 1817. (For the constitution, see *Constitutions of the United States.*)

Mississippi Valley. This name is applied to the vast country which is watered by the Mississippi river and its numerous tributary streams, and which is included between the Alleghany and the Rocky mountains. Mr. Flint considers that it properly includes the tracts watered by the comparatively small rivers, as the Mobile, Pearl and other rivers of West Florida on the east side, and the Sabine, Brassas and Colorado of Texas on the west side, which enter the gulf of Mexico without uniting with the Mississippi. Including the valleys of these separate streams, the great Valley of the Mississippi is bounded south by the gulf of Mexico, and extends on the south-east to cape Florida. Running along that cape in a northern direction, the boundary on the east passes those table elevations which separate the waters of the Mobile and Tombigbee from those of the rivers of East Florida. Thence running through the country of what are called the Indian nations, and touching the north-western extremity of Georgia, the eastern boundary becomes plainly defined by the Alleghany mountains. There are no mountains or ridges on the north, to mark a general boundary between this Valley and the basins of the lakes, or between the waters of the Mississippi and those which flow northward into lake Winnipeck, Hudson's bay, and the Arctic ocean; but the Valley is to be considered as terminating on the north, where it begins to receive its waters. The western boundary is, for the most part, distinctly marked by the Rocky mountains. One of the southern ridges of these mountains divides the waters of Arkansas and Red rivers from those of the Rio del Norte, and traverses the Mexican states of Texas and Coahuila to the low marshes and prairies on the gulf of Mexico. Thus the Valley of the Mississippi extends twenty degrees in latitude, without including cape Florida, and about thirty degrees in longitude. From Oleanne point on the Alleghany, to the highest point of boat navigation on the Missouri, is 5000 miles. Between the extreme points of navigation on the Tennessee, and on the Arkansas and the Red river, the distance is at least 3000 miles. Unlike most other long and large rivers, the Mississippi rises in very cold regions, and flows towards the equator. It thus waters an immense valley, possessing almost every variety of climate, and furnishes the means of easy and most profitable intercourse between the various sections of so vast a region. If we except the Amazon, probably no other valley on the globe will compare in size with that of the Mississippi; and it probably surpasses all others in the richness and variety of its soil, and its general adaptation to the support and comfort of civilized men. In extent, it is like a continent; in beauty and fertility, it is the most perfect garden of nature. (For the leading features of the various sections of this Valley, the rivers, climates and productions, see the separate articles. The history has been given under Louisiana territory, but some further details respecting the earlier periods may be interesting.) Sebastian Cabot is supposed to have sailed along the coast of Florida but a few years after America was discovered by Columbus. The Spaniards contend that Florida was discovered in latitude 30°, in the year 1512, by Juan Ponce de Leon. Some say that he discovered it on Easter day, and gave it the name of *Florida*, from the Spanish name of that festival—*pasqua de flores*—the festival of flowers. Others say that he named it *Florida*, the country of flowers, from the great profusion of flowers with which the trees, shrubs and plants abounded. Between 1518 and 1524, Grijalva and Vasquez, both Spaniards, landed in Florida. From mismanagement with the natives, their expedition failed in its purposes. In 1528, Pamphilo de Narvaes obtained a grant of Florida. He penetrated the country as far as the Indian village Appalacha. The natives there defeated his party. He was succeeded by Ferdinand de Soto, governor of Cuba, who sailed from Havana with nine ships, about a thousand men, two or three hundred horses, and other live stock. He was attacked by the Indians immediately after he landed; but he coveted rather than feared opposition, and marched far into the interior, even to the country of the Chickasaws. He was probably the first white man who saw the Mississippi. He crossed it near the entrance of Red river; but soon after sickened and died. The number of his followers had been much reduced, and those who remained were glad to abandon the project of colonizing Florida. In 1564, the French built fort Charles, near the present site of St. Augustine, and a number of families were established there; but this was not a permanent settlement. About fifty years afterwards, in 1608, a fleet arrived in the St. Lawrence, commanded by admiral Champlaine, and founded the important city of Quebec. Thus the first permanent settlement of the French in America was in the inclement climate of Canada: the Spaniards made their first colonial experiments in Florida, and on Biloxi, at places which are remarkable for their sterility: the English made their first settlements at Jamestown and Plymouth, neither of which places then offered much encouragement of fruitfulness or of peace. The most dreary and sterile regions were first settled. The French first extended their discoveries from Canada, by the lakes, to the river Wisconsin, and thence to the Mississippi, in 1673. June 15th of that year, Marquette and Joliette, two French missionaries, reached the great river. In 1680, Louis Hennepin, a Franciscan friar from Canada, is said to have descended with two men in a boat from the mouth of the Illinois to the mouth of the Mississippi in sixteen days. On his return, he ascended the river to the falls of St. Anthony, if we may credit his assertion. After he reached Canada, he immediately embarked for France. Here he published a splendid account of his travels, and gave the country on the Mississippi the name of Louisiana, in honor of his sovereign, Louis XIV. But it was not till 1699, that the mouths of the Mississippi were well explored by the French. Two frigates arrived, the Badine, commanded by M. Ibberville, and the Marin, commanded by M. le comte de Lugere; and a party succeeded in finding the river, and ascending it to the bayou Manshac, or Ibberville river. Ibberville passed down this bayou through lakes Maurepas and Ponchartrain, which he named. He afterwards made discoveries further to the eastward, and built a fort at Biloxi. Here he left a small colony, and returned to France. This was the commencement of French establishments in this quarter. Bienville, who belonged to this colony, continued to explore the coast. During the summer season, he discovered an English vessel in the Mississippi, about twenty-eight leagues from the sea. The English captain was in doubt whether this were really the Mississippi river; and, on inquiry of Bienville, he was assured that it was not, and that the country in which he now was, had long been in the possession of France. Then directing him far to the westward for the great river, he induced the captain to turn and leave the river; and the place of this stratagem is called the English Turn to this day. It is about fifteen miles below New Orleans. In 1702, Biloxi was evacuated, and the colony removed to a fort on Mobile river, about eighteen leagues from its mouth. Many losses and embarrassments were suffered by the colonists in consequence of the jealousies of the Indians. In 1713, establishments had been made at several points in Louisiana, and M. de la Motte Cadilla was sent over as governor. The census of this period gives about 400 souls, of whom 20 were negroes. They had 300 horned cattle. In 1717, the French secured the possession of Natchitoches on Red river. The same year M. de la Motte was relieved from his command, and succeeded by M. de l'Espignai. In August of that year, a census gave the colony 700 inhabitants, and 400 cattle. During this year, 1717, Bienville, in selecting a spot for a central town to an agricultural colony, fixed upon New Orleans, and left 50 men there to clear the land and build houses. By an arrival from France, 800 settlers were added to the colony; and 250 more were added in 1719, besides 500 negro slaves. From this period, the arrivals became too numerous to be nere enumerated; and the settlements were multiplied at various places in West Florida, along the Mississippi, and on the Red river. For several succeeding years, the colonists suffered greatly from contentions with the savages, from diseases, and from scantiness of provisions. They were not much inclined to the only labor that could render their condition truly prosperous. One tribe of Indians after another, however, yielded to their arms; and more slaves were brought to perform the labor. In 1729, the Natchez Indians massacred nearly all the whites of Natchez, and those on the Yazoo and Washitta. The Chickasaws then united with the French, and almost wholly exterminated that powerful nation, the Natchez. In 1736, a rupture broke out between the French and Chickasaws; and in two very severe engagements Bienville was repulsed with great loss. No other events of great interest occurred till the war between France and Great Britain in 1754. The results of this war, as they affected the settlements and claims of the two nations in the various positions of North America, are given in the article *Louisiana Territory*. The few facts which we have condensed into this article, are principally selected from the first volume of Flint's Geography of the Western States.

Missolonghi, or Missolunghi; till 1826 the principal stronghold of the Greeks in Western Greece (in the ancient Ætolia). Surrounded by morasses, Missolonghi is situated on an alluvial tongue of land, on a shallow bay, west of the entrance of the gulf of Patras and of the outlet of the Evenus (now the *Fidaris*), and east of the mouth of the Achelous (now *Aspropotamo*), and was the bulwark of Western Greece in the late struggle with Turkey. The dikes formed by the alluvion, secure the lower parts of the place against inundations, and the lagoons and shallows protect the city against an attack by sea. Missolonghi, also called by the Greeks *Little Venice*, was, originally, a fishing village, with about 300 inhabitants. At the entrance to the fishing stations lies the island of Anatolico, likewise fortified. Both places can be approached only by fishing boats; the roadsteads for larger vessels are four or five miles distant. Previous to 1804, Missolonghi, which was protected from the pestilential atmosphere of the marshes and lagoons by a north wind that blows every afternoon, contained about 4000 inhabitants (among whom were rich merchants and shipmasters), most of whom left the place on account of the war. It was then governed chiefly by its own laws, merely paying to the pacha of Negropont the customary poll tax. In 1804, it fell under the dominion of Ali Pacha. (q. v.) Missolonghi and Anatolico raised the banner of the cross June 7, 1821, when the Hydriot fleet appeared in their waters. After the bloody campaign of 1822, in Acarnania, the commander-in-chief, prince Mavrocordato (q. v.), threw himself (Nov. 5th), with 380 men and 22 Suliots, under Marco Botzaris, into Missolonghi, which was then untenable and almost deserted, and defended it, with but little artillery and ammunition, against Omer Vrione, pacha of Janina, and Rutshuk Pacha, till, on the 23d Nov., it was relieved and reinforced by sea. Mavrocordato afterwards repulsed several assaults, and compelled the Turks to raise the siege Jan. 6, 1823. Missolonghi, with Anatolico, was then fortified under the superintendence of English officers, partly at the expense of Murray, an Englishman, so that it was rendered one of the strongest places of Greece. Missolonghi sustained a second siege of 59 days, in Sept., Oct. and Dec., 1823, when Mustaï, pacha of Scutari, with Omer Vrione, invested it by land, and Algerine vessels by sea. It was defended by Constantine Botzaris, brother of the hero of Carpinitzi. Mavrocordato hastened to its relief, with Hydriot vessels, and the plague desolated the camp of the barbarians. Mustaï, in his hasty retreat, lost his artillery and his army. Mavrocordato now remained master of the place, and directed affairs in Western Hellas. There was also in Missolonghi a school of ancient Greek. Missolonghi was also the death-place of lord Byron, who arrived at the end of January, 1824, and died, April 19th of the same year. Mavrocordato was called to Nauplia, and in 1825, deprived of his office by the party of Colocotroni. The seraskier Reschid Pacha now appeared before Missolonghi, with 35,000 men. The brave Noto Botzaris (uncle of Marco) defended the place successfully, and the assaults of the seraskier, aided by the fleet of the capudan pacha, after the walls had suffered from a bombardment of forty days, were repulsed in the beginning of August, 1825. Ibrahim Pacha, with the Egyptian army, then joined in the siege. But all assaults were baffled: continued bombardments at length reduced the place to a heap of ruins, and the heroic garrison determined to force a passage through the besiegers. This was attempted at about eight o'clock in the evening of April 22, 1826, while the sick, aged and wounded, with many women, remained behind in a large mill, which contained a quantity of powder, and which they prepared to blow up as soon as it was entered by the Turks. An old wounded soldier took his seat on a mine, and fired it as soon as they entered the town. About 1800, under the command of Noto Botzaris and Kitros Travellas, reached Salona, and afterwards fought at Athens.—See Fabre's *Hist. du Siège de Missolunghi* (Paris, 1826); Howe's *Greek Revolution* (New York, 1828).

Missouri; a very large river of the United States, which unites with the Mississippi a little below latitude 30°. It rises in the Rocky mountains, and takes the name *Missouri* in latitude 45° 10′ N. and longitude 110° W., where the three branches, Jefferson, Gallatin, and Madison, unite. The spring sources of the Missouri, and those of the Columbia which flow west to the Pacific, are within a mile of each other. The three head branches of the Missouri are navigable for a considerable distance before their junction. Where the river makes its escape from the Rocky mountains, it presents a scene of remarkable sublimity. For a distance of nearly six miles, the rocks rise perpendicularly from the water's edge, 1200 feet. The river is compressed to the width of 150 yards, where it rushes through these gates of the Rocky mountains. About 110 miles from this chasm, are the stupendous cataracts of the Missouri. The greatest cascade is 87 feet perpendicular, and the next is 47. Within a space of 18 miles, the river descends 357 feet. These falls are almost the only obstruction to the navigation of the river, even to its head branches, 521 miles above the falls. These distances are given from Lewis and Clarke; and, according to their estimates, the whole length of the Missouri, above its junction with the Mississippi, is more than 3100 miles. Add to this the distance from the mouth of the Missouri to the gulf of Mexico, and the sum will be nearly 4400 miles. We have no means, at present, of giving a more probable estimate. The number of large rivers which flow into the Missouri is so great, that we can enumerate only a small part of them. Yellow Stone, Platte, Osage, and Kansas, are noticed separately. The Chienne is considered navigable by boats 800 miles; White river, 600; and several others are broad, deep streams, navigable for more than a hundred miles. Through most of its course, the Missouri is very rapid and turbid. The alluvial tract on its banks is narrower than that of the Mississippi. There are many settlements on the banks for 400 miles from its mouth, and a few are found more than twice that distance. Beyond the state of Missouri, the river and its branches have generally but narrow margins of fertile land. In many places, the prairies come even to their banks; and emigrants pass onward, and leave such unpromising lands for future generations. The Missouri is much longer than the Mississippi before their junction, and has a much greater volume of water. It is about half a mile wide at its mouth, but is wider for a great part of its course.

Missouri, one of the United States of America, is situated between 36° and 40° 30′ N. latitude, and between 88° 17′ and 94° 30′ W. longitude. Its length is 270 miles, and its breadth 220, and it contains 38 million acres; bounded north and west by Missouri Territory; east and north-east by the Mississippi, which separates it from Illinois; south-east by the Mississippi, which separates it from Kentucky and Tennessee; south by Arkansas Territory. Population in 1820, 66,586, of whom 10,222 were slaves. Persons engaged in agriculture, 13,559; in manufactures, 1887; in commerce, 480. Population in 1830, 140,074, of whom 24,990 were slaves. The south-east part of the state has a very extensive tract of low marshy country, abounding in lakes, and liable to inundation. Back of this there is a region of hilly and mountainous country, extending to the Osage. The best land in the state is north of the Missouri. This part contains large tracts of alluvial and hilly prairies, and is no where mountainous. The soil here is excellent. It is less clayey and stiff than that of Ohio and Kentucky. There is also an immense prairie commencing in the western part of the state, and extending far into the Missouri Territory. The soil of the upland prairies is far inferior to that of the alluvial prairies. The staple productions have been wheat and Indian corn, during the short period that any part of Missouri has been cultivated. Its soil will also produce the other kinds of grain in perfection, and also the various fruits which grow in the states having the same latitude. Tobacco thrives well, and cotton yields a tolerable crop. Flax and hemp are likely to become largely cultivated. Indeed, many parts of this extensive state are likely to rival the best tracts east of the Mississippi in the abundance of their productions. The prairies, being entirely destitute of trees and shrubs, are ready for the plough; and there are such extensive tracts of this land in this state, which are admirably suited to the growth of wheat, that many nations might here be supplied. In the spring, every prairie is a perfect flower garden, exceeding other gardens in extent scarcely more than in the variety and beauty of its flowers. Many of the species are seen through summer and autumn. The climate is extremely fickle and variable, and the changes of temperature are very great. The prevailing winds follow the direction of the Mississippi Valley; those from the northward are cold, and the southern are warm. Winter commences in its severity about Christmas, and is frequently so severe, that the Missouri is passable on the ice with loaded teams, for many weeks. The summers are very warm. Less rain falls here than in New-England or the Southern States; and the atmosphere is much drier. Of the minerals and fossils already discovered, the principal are lead, coal, plaster, iron, manganese, zinc, antimony, cobalt, various kinds of ochre, common salt, nitre, plumbago, porphyry, jasper, chalcedony, and marble. Lead ore is dug in various parts of the state, but there is a district extending nearly a hundred miles in length, and forty in width, which is particularly distinguished for its lead mines. The centre of the part which has been most explored, is about seventy miles south-west from St. Louis, and about half as far from Herculaneum on the Mississippi. The French dug lead from these mines 100 years ago. Somewhat more than 3,000,000 pounds are annually smelted, giving employment to about 1200 workmen. Shot-towers are erected at Herculaneum and other places, and great quantities of shot are exported. The mine country is remarkable for its salubrity, the fertility of its soil, and its beautiful streams. There is doubtless ore enough, of excellent quality, to supply the whole world with lead. The great river Missouri traverses this state. The Osage is its principal southern branch, and will be described separately. Several considerable rivers unite their waters with the Missouri on the northern side, and others with the Mississippi. The Maramec runs through the mineral district, and enters the Mississippi eighteen miles below St. Louis. It is between 200 and 300 yards wide, and navigable by boats at some seasons 200 miles. Many of the small rivers are dry a part of the summer. St. Louis is the commercial capital, and is the largest town of the United States west of the Mississippi. St. Genevieve, about one hundred miles west of the Mississippi, and sixty-four below St. Louis, is settled principally by French. It has about 1500 inhabitants, and considerable trade in lead. Jackson, the county town of Cape Girardeau county, is a thriving village. Potosi, in the mining district, is a considerable town. Herculaneum is the principal place of deposit for the lead from the mines. New Madrid is, next to Natchez, the most noted landing place for boats on the Mississippi. It suffered greatly from an earthquake in 1811. St. Charles, about twenty miles above St. Louis, contains about 1200 inhabitants. Jefferson, a new town at the mouth of the Osage, is the present seat of government. Franklin, 150 miles by land above St. Louis, is a considerable village. The most numerous denominations of Christians in Missouri, are Methodists, Presbyterians and Catholics. Religious instruction and good schools are less esteemed and less common in this new state than in most others in the Union. St. Louis college, a Catholic institution, was founded in 1829. The college building is a brick edifice, fifty feet by forty; but this is not sufficiently commodious, and preparations have been made for enlarging it. It is situated very pleasantly in the neighborhood of the city. It has a president, six professors, and 125 students. Two other professors are about to be added. The library contains 1200 volumes. This institution is likely to become very useful to the state. Corporations have been formed for nine academies. St. Louis was founded in 1764; the principal inhabitants were from Canada. This country was settled but slowly until it was purchased by the U. States; since that period, immigration has almost annually increased. In 1820, Missouri became an independent state, and it will, doubtless, become one of the most populous in the Union. (For the constitution, see *Constitutions of the United States.* A good description of Missouri, and of all the states of the Mississippi Valley, may be obtained from Flint's Geography, &c.)

Missouri Territory; a tract of country belonging to the U. States, 900 miles long, and 800 broad; bounded by the British possessions on the north; the North-West Territory, Illinois and Missouri on the east; the territories of the Mexican republic on the south and south-west; and west by the Rocky mountains. The belt of land on the west border of the Mississippi, that is wooded, is generally from two to four hundred miles broad. Then commence the immense prairies, which constitute so striking and impressive a feature in the vast country that spreads westward to the Rocky mountains. For the most part, this country is a plain, more or less covered with grass, and, in many places, fertile; but other parts, of great extent, are almost a moving sand. Countless numbers of buffaloes, elk, and other wild animals, graze upon it. The principal sources of the Missouri, Arkansas, and Red river, are found in this territory, and several large branches of the Mississippi, above the Missouri, come from the north-western part of the same vast country. The Rocky mountains are yet but imperfectly known. Their bases have generally an elevation of 3 or 4000 feet above the ocean, and some of them are estimated at 12,000 feet in height. Following up the valleys of the sources of the Platte to the opposite valleys of waters that flow west, a good road is found, easily passable with loaded wagons. Thus an easy communication is provided between the navigable rivers of the Oregon territory, on the borders of the Pacific ocean, and those which flow into the gulf of Mexico. There are other ranges of mountains, which traverse different parts of this territory, as the Black hills, the Ozark mountains, the Masserne, &c. There are fertile belts of land on the margins of most of the rivers, and some of them have a great extent of rich country. Generally, as we recede from the rivers, the soil becomes poor, and very extensive deserts are found in the southern regions. There are very few settlements of whites in this vast country, and none so considerable as to have any established government. At Council Bluffs there is a military post, having one regiment of infantry. Many tribes of Indians still possess extensive tracts. The Sioux are the most numerous; the whole number is estimated at between 140,000 and 150,000.

Mistletoe. (See *Misletoe.*)

Mite. Several minute species of insects are known under the name of *mites*, most of which, however, belong to the genus *acarus* of Linnæus. The most of these animals are very small, or almost microscopic. They occur every where, some being of a wandering character and to be found under stones, leaves, the bark of trees, or in provisions, as meal, cheese, pepper, &c.; others are stationary and parasitic, on the skin of various animals, sometimes proving of serious injury to them. It is even asserted, and with great appearance of truth, that the itch is owing to these animals. From the experiments of several inquirers, it appears that they not only have been seen in the pustules of the itch, but also that they are capable of giving it to a healthy individual by being placed on his skin. This is, however, denied by other and very high authority The mites inhabiting cheese are so minute that to the naked eye they appear like moving particles of dust. They are very quick-sighted, and when once they have been touched with a pin, it is curious to observe the cunning which they display to avoid a second touch. They are extremely voracious, and will even prey on each other, and are so tenacious of life that they have been kept alive for many months between the object-glasses of a microscope. The species which is found in meal occasions considerable injury. Leuwenhoek states that they may be expelled by placing a few nutmegs in the vessel or sack containing the meal. A German writer, named Funke, advises a cheaper remedy, which consists of the decorticated, thick branches of the lilac, or elder, which are to be put in the flour, and will, it is said, completely prevent their depredations. (See *Tick.*)

Mite; a small coin, formerly current, equal to about one third of a farthing; it also denotes a small weight used by the moneyers. It is equal to the 20th part of a grain, and divided into 24 doits.

Mitford, William; an eminent historical and philological writer, born in London, February 10, 1734. He studied at Queen's college, Oxford, and then at the Middle Temple, but early quitted the profession of the law, and obtained a commission in the Southampshire militia, of which he became colonel. In 1785, he was chosen member of parliament, in which he sat till 1818. His death took place in 1827. He was professor of ancient history at the royal academy; and, besides his principal work, the History of Greece (1784—1810, 4 vols., 4to.; since reprinted in 8vo.), he published an Essay on the Harmony of Language (1774, 8vo.); a Treatise on the Military Force, and particularly the Militia of this Kingdom (8vo.); Observations on the History of Christianity (8vo.); a work on architecture, and another on the corn-laws.

Mithra; the sun, or the genius of the sun, with the Persians, which was worshipped as a deity, at a later period, also in Greece and Rome. Mithra stands as a mediator between Ormuzd and the world. His symbols are the sun (of truth and justice) on his head, the mace (power) in his hand, or the sacrificing dagger, and the bull of the world, on whose back he lies. He is not to be confounded with the Mitra, or Anahid, the Persian Venus. Even in Germany, there are traces of his worship, in the provinces anciently under the dominion of the Romans.

Mithridates; the name of several kings of Pontus, among whom Mithridates the Great, or the VIth, was the most renowned. Ambition, cruelty, a spirit which nothing could bend, united with a powerful genius, were the characteristics which early developed themselves in his character. His father was murdered B. C. 124, and Mithridates ascended the throne at the age of 13 years. His mother and instructer plotted against his life; but he caused the former to be thrown into prison (although she had been made co-regent with him), where she died, according to some, of ill treatment, but according to others, of poison. He hardened his body against exposure, and endeavored to render himself insensible to the effects of poison (whence the name of a supposed antidote, *Mithridate*). When he became of age, he travelled through Asia, partly to learn the customs, laws, manners and languages of the inhabitants (and he is said to have spoken twenty-two languages), and partly to examine the territories of his neighbors, of which he meditated the conquest. After an absence of three years, he returned, and put to death his wife, who had been unfaithful, and had attempted to poison him. He then attacked Paphlagonia, and divided it with his ally, the king of Bithynia. The Romans, who had declared the country free, threatened him with a war; but Mithridates was so little alarmed at this threat, that he even possessed himself of Galatia, which had placed itself under the protection of Rome. He next directed his attention to Cappadocia; but, fearing the power of Ariarathes, who was in possession of this country, and his connexion with the Romans, he had recourse to treachery, and caused him to be assassinated. At the same time, Nicomedes, king of Bithynia, entered Cappadocia, drove out the son of the murdered king, and married Laodice, the widow of Ariarathes and the sister of Mithridates. The latter then took the opportunity of reëntering Cappadocia, conquered it, and replaced his nephew on the throne; but he soon compelled the young prince, by his dishonorable requisitions, to a declaration of war. They marched against each other, with about equal forces. Mithridates then offered terms of peace, and invited the young prince to a conference, in which he killed him with a dagger, in the sight of both armies. The Cappadocians, seeing their master fall, were seized with terror, and Mithridates possessed himself of the country, almost without opposition. Nicomedes now concerted with his wife the plan of suborning a young man to represent the third son of Ariarathes, and caused him to send to Rome to implore assistance. Laodice herself performed a journey to Rome, in order to confirm his story. Mithridates took advantage of this fraud to endeavor to prove to the Romans that the young prince to whom he had given up Cappadocia (who was his own son, to whom he had given the name of Ariarathes) was the real son of Ariarathes. The Romans, having discovered this double fraud, took Cappadocia from Mithridates and Paphlagonia from Nicomedes; and the Cappadocians elected Ariobarzanes their king. Scarcely had Sylla, whose arms had elevated the latter to the throne, left Asia, when Mithridates, with the assistance of Tigranes, king of Armenia, replaced his son upon the Cappadocian throne. He also, at the same time, took Bithynia, and gave that country to his brother Socrates Christos. The Romans, however, soon restored things to their former condition. Mithridates then declared himself against the Romans, and, because they would not acquiesce in his demands, he suddenly fell upon Cappadocia and Bithynia at the same time. His forces amounted to 250,000 foot, 50,000 horse, 130 chariots armed with scythes, and 400 ships. Those of the Romans, with the Bithynian auxiliaries, were not much inferior, and were commanded by Cassius, Aquilius and Oppius. Mithridates was successful at the opening of the war. He not only defeated Nicomedes, but also Aquilius, conquered Bithynia, and captured a great part of the Roman fleet. Phrygia, Caria, Mysia, Lycia, Pamphylia, Paphlagonia, and all the country as far as Ionia, fell into his hands, and hailed him as the savior of Asia. The Roman generals Oppius and Aquilius were also given up to him as prisoners by the inhabitants of Laodicea and Lesbos; and he caused melted gold to be poured down the throat of the latter, in derision of the avarice of the Romans. The free cities of Asia, Magnesia, Mitylene, Ephesus, &c., opened their gates to the victor, who collected treasure sufficient to maintain his army five years. He caused all the Roman citizens in Asia Minor, with their wives and children, to be put to death. Dionysius and Plutarch give the number of those who perished at 150,000; Appian at 80,000. Mithridates next conquered the islands of the Ægean sea. Rhodes, however, held out so firmly that he returned to Pergamus. From hence he sent his general Archelaus, with 120,000 men, to Greece. Athens fell by treachery into his hands, and various other places were taken, while another of his generals, Metrophanes, ravaged Eubœa. On the news of the defeat of the latter, Mithridates sent his son Ariarathes, with a powerful army, into Macedonia, which, with Thrace, was speedily conquered. His arms were every where victorious, until, at length, the report that he threatened Italy itself, led the Romans to adopt more decisive measures. Sylla embarked for Greece, reduced Athens by famine, destroyed the army of Archelaus in a bloody contest at Chæronea, and emancipated all Greece by two victories in Bœotia. Fimbria, with no less success, reduced Asia Minor, and besieged Mithridates himself in the fortress of Pitane, who finally fled to his ships. The Pontic fleet was also twice defeated by Lucullus. Thus pressed on every side, Mithridates commissioned Archelaus to conclude a treaty, which Sylla granted, under severe conditions, B. C. 89. Mithridates was limited to his hereditary kingdom of Pontus, and compelled to deliver into the hands of the Romans 80 ships of war manned, and to pay 2000 talents. Sylla had scarcely left Asia before Mithridates attacked Colchis, and refused to fulfil the conditions of the peace. The Roman general, Muræna, who entered and ravaged Pontus, was defeated, and many cities of Asia had declared themselves for the victor, when Aulus Gabinius, sent by the dictator Sylla, appeared. Cappadocia was evacuated by Mithridates; but, on the other hand, he subdued the Bosphorians (B.C. 82), and had no sooner heard of the death of Sylla (B. C. 78), than he determined to recover the countries he had ceded, and, in order to distract the Romans, entered into a treaty with Sertorius, the chief of the Marian faction in Spain. His son-in-law Tigranes, king of Armenia, entered into his designs, and marched to Cappadocia, while Mithridates himself, after the subjugation of Paphlagonia, conquered Bithynia and the provinces of Asia. A new war with Rome was now unavoidable. The consuls Lucullus and Cotta went against Mithridates, the latter as commander of the fleet, and the former as general of the land forces. Cotta was unsuccessful; Lucullus, on the contrary, cautiously avoided a general engagement with the superior forces of the enemy, but at the same time gained so many important advantages, by sea and land, that he soon entered Pontus as a conqueror. While he was besieging Amisus, Mithridates collected an army, and gained a decided victory; yet Lucullus succeeded in regaining what he had lost, and Mithridates found himself compelled, by the revolt of his own troops, to fly to Tigranes, in Armenia, who received him, but did not make common cause with him. Lucullus, who had, in the mean time, transformed Pontus into a Roman province, demanded the surrender of Mithridates, which Tigranes refused, because, as he said, although he disapproved the conduct of Mithridates, he nevertheless esteemed it dishonorable to deliver up so near a connexion to his enemies; but, as he foresaw that the Romans would not be contented with this answer, he agreed with Mithridates that he should return to Pontus with 10,000 men, collect an army, and return with it before Lucullus, who was besieging Sinope, should come into Armenia. Sinope, however, surrendered sooner than they expected, and Lucullus defeated Tigranes before his junction with Mithridates. Tigranes, nevertheless, collected a new army, which Mithridates led into Pontus. Lucullus, however, checked his progress by a victory; but, during the winter, Mithridates strengthened his forces, and soon entirely defeated the lieutenants of Lucullus, and then directed his march towards Armenia Minor, to form a junction with Tigranes. In the mean time, the consul Manius Acilius Glabrio had taken the chief command, in the place of Lucullus. The allied kings took advantage of the confusion incidental to this change, and reconquered the greatest part of Pontus, Bithynia, Cappadocia and Armenia Minor. Pompey then appeared at the head of the Roman army. After he had in vain offered him peace, and sought a decisive battle, he besieged Mithridates in his camp, not far from the Euphrates. The king thence retreated, but was pursued, attacked in a defile, and totally routed at Nicopolis (B. C. 66); he escaped with only 800 horse. Tigranes would not receive him, and he fled to Colchis. Pompey followed him, and he took refuge in the dominions of a Scythian prince. He was now thought to be dead, until he suddenly reappeared in Pontus, collected troops, and, at the same time, offered terms of peace to Pompey; they could not, however, agree, and the war broke out afresh. The force of the Romans in Pontus was small, and Mithridates made some progress. The inhabitants, however, soon revolted from him, and his neighbors refused him their assistance; nevertheless, his unbending spirit rejected the proposals of peace made by Pompey. He put to death his son Machares, made himself king in Bosphorus, and formed the bold project of penetrating into Gaul (where he had sent ambassadors) at the head of his army, and marching, with the inhabitants, into Italy; but, having encamped at the Cimmerian Bosphorus, an insurrection broke out in his army, at the head of which was his son Pharnazes. Unable to reduce the rebels to their duty, and having taken poison without effect, Mithridates threw himself upon his sword, that he might not fall alive into the hands of the Romans (B. C. 64). This celebrated monarch ruled Pontus 59 years.

Mithridates; the title given to the *Allgemeine Sprachenkunde* of Adelung and Vater, in which the Lord's prayer is exhibited in nearly five hundred languages and dialects. (See *Vater*.)

Mitra; a head-dress of the ancient Persian kings. (See *Infula*.)

Mitra; the ancient Persian goddess of love.

Mitre (Greek μίτρα), in costume; a sacerdotal ornament, worn on the head by bishops and certain abbots on solemn occasions, being a sort of cap, pointed and cleft at top. The high-priest among the Jews wore a mitre, or bonnet, on his head. The inferior priests of that nation had likewise their mitres, but in what particulars they differed from that worn by the high-priest, is not now certain. Some writers contend that the earlier bishops wore mitres; but this circumstance is also enveloped in a good deal of doubt. Among the primitive followers of Christianity, there was a class of young women who professed a state of virginity, and were solemnly consecrated thereto. These wore a purple and golden mitre, as a badge of distinction. His holiness the pope uses four different mitres, which are more or less rich, adorned according to the nature of the festivals on which they are assumed. The cardinals formerly wore mitres, and some canons of cathedrals in Roman Catholic countries have the privilege of wearing the mitre, which is also borne by several families of distinction in Germany as their crest. But we must look back into remoter ages, in order to find the origin of the use of the mitre. It would seem to have obtained primarily in India. According to several authors, it was first a part of female costume, and when worn by a man was considered as indicative of effeminacy. The fillet, with which Bacchus is often represented as having his head bound, has been denominated *mitrephora*. A peculiar kind of head-dress, covering the whole head, is often found depicted on ancient coins, &c., with pendents, or pointed dewlaps, by means of which, perhaps, this kind of mitre was tied under the chin. This was probably the Phrygian mitre; for we find Paris with this head-dress on a gem published by Natter, and subsequently by Winckelmann, in his *Monumenti Inediti* (No. 112). Priam, and the Amazons, upon the Homeric monuments, and the Parthian kings, upon several medals, have a similar mitre. The mitre is very frequently met with in early Christian manuscripts, in illuminated missals, and upon the oldest ecclesiastical monuments; this, however, might be expected, since its usage has always been principally ecclesiastical. A statue of St. Peter, erected in the seventh century, bears this mark of distinction, in the shape of a round, high, and pyramidal mitre, such as those worn by each of the popes since. Perhaps this statue offers one of the earliest instances of its usage in the Christian churches. (See *Infula*, and *Tiara*.

Mittau (in Lettonian, *Jelgava*); a city of Russia, chief city of the government of Mittau (see *Courland*); lat. 56° 39′ N.; lon. 23° 43′ E. It is situated in a low and marshy country, about nine leagues from Riga. The population is 12,000, composed of Russians, Germans, Lettonians and Jews. The old ramparts have been destroyed. It contains numerous charitable and literary institutions. The old castle, founded by the duke Ernest John, was occupied by Louis XVIII for several years. Mittau, the ancient residence of the dukes of Courland, was captured by the Swedes in 1701, and recovered by the Russians in 1706.

Mittimus; a writ by which records are transferred from one court to another. The precept directed to a gaoler, under the hand and seal of a justice of the peace, for the receiving and safe keeping of a felon, or other offender, by him committed to gaol, is also called a *mittimus*.

Mizzen; the aftermost or hindermost of the fixed sails of a ship. (q. v.)

Mizzen Mast; the mast which supports all the after sails. (See *Ship*.)

Mnemonics (from the Greek *μνημονεύω*, to remember); the art of assisting the memory. In the article *Memory*, the liveliness with which ideas are often recalled by accidental associations, has been spoken of. This very naturally led men to attach ideas, words, &c., purposely, to certain things familiar to the mind, in order to be assisted by the latter in remembering the former. One kind of mnemonics, and perhaps the earliest, is to attach the idea to be remembered to some impression of the senses, such as the external objects which are most familiar to our eyes (*topology*, from *τόπος*, place): some persons make use of a picture, arbitrarily drawn, to which they attach the subjects to be remembered, in a certain order (*symbolics*, from *συμβολον*, mark); others make use of numbers. There are certain natural aids to the memory, which we all employ; for instance, if we put a piece of paper in a conspicuous spot of our room, or make a knot in a handkerchief, in order to be reminded of certain things at particular times. As to topology, an orator who intends to deliver a long speech without notes, may derive assistance from previously entering the room where he is to speak, and attaching in his mind to certain prominent objects in the room the chief heads of his speech. To remember dates, several methods have been devised. The one proposed in Gray's *Memoria Technica* is to make certain changes in the names of persons, places, &c., in such a way that the words shall signify also certain numbers, according to a plan previously adopted. A table must be drawn up, similar to the following:—

a	*e*	*i*	*o*	*u*	*au*	*oi*	*ei*	*ou*	*y*
1	2	3	4	5	6	7	8	9	0
b	*d*	*t*	*f*	*l*	*s*	*p*	*k*	*n*	*x*

If we now wish to impress in our memory that Julius Cæsar arrived at the supreme power 46 B. C., we may change the *Julius* into *Julios*, which will be easily remembered whenever we think of *Julius*, and *os* signifies, according to the above plan, 46. If we wish to remember that Alexander the Great founded his empire 331 B. C., we change *Alexander* into *Alexita*, *ita* signifying 331 according to the above. In the same way *Cyrus*, changed into *Cyruts*, gives the year of the foundation of his great empire. This method may much facilitate the retaining of facts to a certain extent; but it would seem as if the changes themselves might become too numerous to be easily remembered.—Systems of mnemonics of a more *general* character have been proposed; few, however, or none, have remained in vogue for any length of time. Generally speaking, mnemonics ought to be individual; each individual ought to find out that method of assisting his memory which is most convenient to himself; and this will vary, of course, with his habitual associations. The only true basis of a philosophic memory, however, is just classification. (See *Memory*.) Considerable aid to the memory may be derived from the use of rhymes, or a rhythmical arrangement of words. Remote antiquity made use of rhythm to preserve the memory of historical facts before the invention of writing. The ancients were well acquainted with mnemonics; according to some, the science came from the East to the Greeks; others consider the poet Simonides as the inventor of them; but such inventions cannot be properly assigned to any particular individual. In the time of Cicero it was known among the Romans (see Cicero *De Orat.* ii, 86 et seq.; *Auct. ad Herenn.* iii, 16 seq.; Quinctil. x, 1, 11 seq. After Quinctilian's time, mnemonics again declined. In considering the use of mnemonics by the ancient orators, we should remember that they delivered long orations indeed, but had nothing like our debates, in which a member of a deliberative body sometimes rises, and speaks for hours in succession, recapitulating all which has been said before him on the question, and therefore, to a considerable degree, without premeditation. Most of the systems of mnemonics devised for the ancients, would be useless for a parliamentary orator of the present day. In the place of the ancient mnemonics, the schoolmen used the tabellary method. Conrad Celtes, in the fifteenth century, and Schenkel, in the sixteenth, reëstablished the ancient system. In modern times, several scholars have given much attention to this subject. Some of the best works are Kästner's *Mnemonik, oder die Gedächtnisskunst der Alten* (Leipsic, 1805); *Systematische Anleitung zur Theorie und Praxis der Mnemonik*, by Aretin (Sulzbach, 1810); Feinagle's New Art of Memory, to which is prefixed some Account of the Principal Systems of Artificial Memory (London, 1812); Gray's *Memoria Technica* (1730). The degree to which the power of memory has been sometimes carried, is almost incredible. Thus Seneca states, that, by the mere effort of his natural memory, he was able to repeat 2000 words upon once hearing them, each in its order, though they had no dependence or connexion on each other. He also mentions Cyneas, ambassador to the Romans from king Pyrrhus, who in one day so well learnt the names of the people whom he saw, that the next day he saluted all the senators, and all of the populace assembled, each by his proper name. Pliny says that Cyrus knew every soldier in his army by name, and L. Scipio all the people of Rome. Charmipas, or rather Carneades, when required, it is said, would repeat any volume found in the libraries as readily as if he were reading. Doctor Wallis tells us, that, without the assistance of pen and ink, or any thing equivalent, he was able, in the dark, by the mere force of memory, to perform arithmetical operations, as multiplication, division, extraction of roots, &c., to forty places. It is said of Magliabecchi, that a gentleman, having lent him a manuscript which he was going to print, came to him soon after it was returned, and, pretending that he had lost it, desired him to repeat as much of it as he could; on which Magliabecchi wrote down the whole, without missing a word or varying the spelling.

Mnemosyne (Greek, *Memory*), in the Grecian mythology; daughter of Uranus (*Cœlus*, Heaven), and Gaia (*Terra*, Earth), and by Jupiter the mother of the nine Muses. (q. v.)

Mo signifies *tribe*, *nation*, in many idioms of Southern Africa.

Moab; the land of the Moabites, an Arabian tribe, dwelling in the mountainous region east of the Dead sea, from Zoar to the river Arnon, between the Midianites, Edomites and Amorites. According to the Mosaic account (*Gen.* xix, 30), the Moabites were descended from Moab, the son of Lot by his eldest daughter. In the time of the judges, they were for eighteen years masters of the Hebrews, but in the time of David, were rendered tributaries to them. After the Babylonish captivity, they lost their separate national existence. Their principal leaders mentioned in scripture, are Balak and Eglon; their idols were Peor and Chemosh.

Moallakat (i. e. *the hung up*); seven Arabian poems of the time immediately preceding Mohammed, which, on account of their excellence, were suspended in public, on the temple at Mecca. An English translation with arguments, and the Arabic text, was published by sir W. Jones (London, 1783.) (See *Arabian Literature*.)

Moat, or **Ditch**, in fortification, a deep trench dug round the rampart of a fortified place, to prevent surprises. The brink of the moat next the rampart, is called the *scarp*; and the opposite one, the *counterscarp*. A dry moat round a large place, with a strong garrison, is preferable to one full of water; because the passage may be disputed inch by inch, and the besiegers, when lodged in it, are continually exposed to the bombs, grenades and other fire-works, which are thrown incessantly from the rampart into their works. In the middle of dry moats, there is sometimes another small one called *lunette*, which is generally dug till the water fills it. The deepest and broadest moats are accounted the best; but a deep one is preferable to a broad one: the ordinary breadth is about twenty fathoms, and the depth about sixteen. To drain a moat that is full of water, a trench is dug deeper than the level of the water, to let it run off, and then hurdles are thrown upon the mud and slime, covered with earth or bundles of rushes, to make a sure and firm passage.

Mobile; a city, port of entry, and capital of Mobile county, Alabama, on the west side of Mobile river, at its entrance into the bay. It is 30 miles north of Mobile point, which is on the east side of the mouth of the bay; 55 miles west by north from Pensacola; and 160 east from New Orleans; lat. 30° 40′ N.; lon. 88° 21′ W. In 1813, this town came into the possession of the U. States, and then contained about 300 inhabitants. In 1822, its population was estimated at 2800; and in 1830, it contained 3194.—Mobile is situated considerably above the overflow of the river, in a dry and pleasant place; but access to the city is rendered somewhat difficult by a swampy island opposite. It has, moreover, swampy lands and stagnant waters back of it; and near it is a sterile country of pine woods. The city has several times been ravaged by the yellow fever, and has once been almost wholly destroyed by fire. Advantage was taken of the sickliness of Mobile, a few years since, to establish the town of Blakely, on the eastern and opposite side of the bay, and ten miles distant from Mobile. Besides being healthy, this site has many very important advantages over Mobile; but the project of establishing it as a substitute for Mobile, entirely failed. Only New Orleans and Charleston are before Mobile in the cotton trade, and Charleston is declining, while Mobile is rapidly increasing. The value of exports of domestic produce from Alabama in 1829, was $1,679,385; and nearly the whole of this must have been shipped at Mobile. This city has a regular steam-boat communication with New Orleans through lake Ponchartrain. During most of the year, steam-boats are constantly plying between this place and the towns on the river, and many vessels are loading at the wharves for distant ports.

Mobile; a river of Alabama, formed by the union of the Alabama and the Tombeckbee. It takes the name of *Mobile* where these two rivers unite at fort Mimms. It enters Mobile bay by two mouths. The Alabama is the eastern branch, and rises in the Alleghany ridges of Georgia. It receives a number of small streams, and becomes navigable for small sea vessels at fort Claiborne. Similar vessels ascend the Tombeckbee to the mouth of the Black Warrior, 80 miles above St. Stephens. At moderate stages of water it affords steam-boat navigation to Tuscaloosa, 320 miles from Mobile. Both these rivers are very favorable to boat navigation. The lands on their borders are excellent, and produce great quantities of cotton.

Mobility; a contingent property of bodies, but most essential to their constitution. Every body at rest can be put in motion, and if no impediment intervenes, this change may be effected by the slightest external impression. Thus the largest cannon ball, suspended freely by a rod or chain from a lofty ceiling, is visibly agitated by the horizontal stroke of a swan shot which has gained some velocity in its descent through the arc of a pendulum. In like manner, a ship of any burden is, in calm weather and smooth water, gradually pulled along even by the exertions of a boy. A certain measure of force, indeed, is often required to commence or to maintain the motion; but this consideration is wholly extrinsic, and depends on the obstacles at first to be overcome, and on the resistance which is afterwards encountered. If the adhesion and intervention of other bodies were absolutely precluded, motion would be generated by the smallest pressure, and would continue with undiminished energy.

Mocha, or **Mokka**; a town on the Arabian sea, in the province of Yemen, with a commodious harbor, and about 6000 inhabitants, including several hundred Jews and about 500 Banians. It is frequented by merchants from the Barbary States, Egypt, Turkey and India, and by English, French and North American ships. The coffee which bears the name of the town, is brought down from the interior of the country by caravans. Gum Arabic, copal, mastich, myrrh, frankincense, indigo, senna, and other articles, are exported. The imports are chiefly Indian commodities. The trade is most active between May and August, in which period about 100 ships enter the port. There are several mosques, caravansaries and European factories here. Lon. 43° 10′ E.; lat. 13° 16′ N.

Mocking Bird (*turdus polyglottos*). This capricious little mimic is of a cinereous color; paler beneath. It inhabits America from New England to Brazil, but is rare and migratory in the Northern States, whilst it is common and resident in the Southern. This bird, although it cannot vie with most of the American species in brilliancy of plumage, is much sought for on account of its wonderful faculty of imitating the tone of every inhabitant of the woods, from the twitter of the humming-bird to the scream of the eagle. But its notes are not entirely imitative; its own song is bold, full, and exceedingly varied, during the utterance of which it appears in an ecstasy of delight. In confinement, it loses little of its power or energy. To use the words of Wilson, "He whistles for the dog; Cæsar starts up, wags his tail, and runs to meet his master. He squeaks out like a hurt chicken, and the hen hurries about, with hanging wings and bristled feathers, clucking, to protect her injured brood. The barking of the dog, the mewing of the cat, the creaking of the passing wheel-barrow, follow with great truth and rapidity. He repeats the tune taught him by his master, though of considerable length, fully and faithfully. He runs over the quiverings of the canary, or the clear whistlings of the Virginia nightingale or red-bird, with such superior execution and effect, that the mortified songsters feel their own inferiority, and become altogether silent; while he seems to triumph in their defeat, by redoubling his exertions."—The female lays from four to five eggs, of an ash-blue color, marked with patches of brown; she incubates fourteen days, and is extremely jealous of her nest, being very apt to desert it if much disturbed. During the period when the young are in the nest, neither cat, dog or man can approach it without being attacked. When intended for the cage, they are either taken from the nest when they are very young, or at a later period by trap-cages.

Modality. Kant uses this word for that *category* (see *Kant*) which determines the relation of all the ideas of the judgment to our understanding. The logical modality of Kant is, therefore, the manner in which the understanding conceives the connexion and relation of ideas in a judgment; whether we leave something undecided, as in problematical judgments, or give the thing as true, as in assertory judgments, or are obliged to consider a certain connexion of ideas to be true, as in apodictical judgments. (For further information, see the article *Kant.*)

Mode; a particular system, or constitution of sounds, by which the octave is divided into certain intervals according to the genus. The doctrine of the ancients respecting modes is rendered somewhat obscure, by the difference among their authors as to the definitions, divisions and names of their modes. Some place the specific variations of tones, or modes, in the manner of division, or order of the concinnous parts; and others merely in the different tension of the whole; that is, as the whole series of notes are more acute or grave, or as they stand higher or lower in the great scale of sounds. While the ancient music was confined within the narrow bounds of the tetrachord, the heptachord, and octachord, there were only three modes admitted, whose fundamentals were one tone distant from each other. The gravest of these was called the Dorian; the Phrygian was in the middle, and the acutest was the Lydian. In dividing each of these tones into two intervals, place was given to two other modes, the Ionian and the Æolian; the first of which was inserted between the Dorian and Phrygian, and the second between the Phrygian and Lydian. The system being at length extended both upward and downward, new modes were established, taking their denomination from the five first, by joining the preposition *hyper* (over or above) for those added at the acute extremity, and the preposition *hypo* (under) for those below. Thus the Lydian mode was followed by the Hyper-Dorian, the Hyper-Ionian, the Hyper-Phrygian, the Hyper-Æolian, and the Hyper-Lydian, in ascending; and the Dorian mode was succeeded by the Hypo-Lydian, Hypo-Æolian, Hypo-Phrygian, Hypo-Ionian, and the Hypo-Dorian, in descending. The moderns, however, only reckon two modes, the major and the minor. The major mode is that division of the octave by which the intervals between the third and fourth, and seventh and eighth, become half tones, and all the other intervals whole tones. The minor mode is that division by which the intervals between the second and third, and fifth and sixth, become half tones, and all the others whole tones. Another distinction also exists between the major and minor modes; the major mode is the same, both ascending and descending; but the minor mode in ascending sharpens the sixth and seventh, thereby removing the half tone from between the fifth and sixth to the seventh and eighth.

Model; an original of any kind proposed for copy or imitation. It is used, in building, for an artificial pattern formed in stone or wood, or, as is most commonly the case, in plaster, with all due parts and proportions, for the more correct execution of some great work, and to afford an idea of the effect to be produced. Models in imitation of any natural or artificial substance are usually made by means of moulds of plaster of Paris. In painting, this is the name given to a man or woman who is procured to exhibit him or herself, in a state of nudity, for the advantage of the students. These models are provided in all academies and schools for painting, and the students who have acquired a tolerable use of the pencil are introduced to this kind of study. By this means, the details and proportions of the human shape, the play of the muscles, the varieties of expression, &c., are displayed and inculcated far better than by any course of lectures or any study of former works. It is desirable that the living models used in an academy, or even in a private painting room, should be changed as frequently as possible, or the student is in danger of falling into mannerism. Millin speaks of a model, of the name of Deschamps, who did duty in this way upwards of 40 years in the academy at Paris, and comments on the facility with which this person's form and features might be recognised, in every variety of subject or of expression, in the paintings of the students of that period. In sculpture a model implies a figure made of wax or terra cotta, or any other malleable substance, which the artist moulds to guide him in fashioning his work, as the painter first makes a sketch, or the architect a design. When a model of any existing object is to be taken, the original is first to be greased, in order to prevent the plaster from sticking to it, and then to be placed on a smooth table, previously greased, or covered with a cloth, to guard against the same accident; then surround the original with a frame or ridge of glazier's putty, at such a distance as will admit of the plaster resting upon the table, on every side of the subject, for about an inch, or as much as may be thought sufficient to give the proper degree of strength to the mould. An adequate quantity of plaster is then to be poured as uniformly as possible over the whole substance, until it is every where covered to such a thickness as to give a proper substance to the mould, which may vary in proportion to the size. The whole must then be allowed to continue in this way till the plaster shall have attained its firmness; when, the frame being removed, the mould may be inverted, and the subject taken from it; and when the plaster is thoroughly dry, it should be well seasoned.

Modena; a sovereign duchy of Italy, lying in a fruitful plain of Lombardy, watered by the Panaro, and bordering on Tuscany, Lucca, Bologna, Mantua and Parma. By an act of the congress of Vienna, Reggio, Mirandola, Correggio (birth-place of the celebrated painter), Carpoli and Rivoli, together with Massa and Carrara, and the former Imperial Fiefs, are united with the duchy of Modena proper to constitute one government; superficial extent of the whole, 2000 square miles; population, 375,000. The territory is fertile and well cultivated, the climate, in general, temperate and healthy, and the principal productions corn, rice, fruits, wine, oil, silk, honey, iron, marble, &c. The income of the state is about 1,500,000 florins; the armed force 2080 men. The ruling house is of the Austrian line of the house of Este (see *Este*); the government is absolute, and the administration is conducted by one minister and two secretaries; the Austrian civil code is in force. The present ducal house is descended from Cæsar of Este, a cousin (by a morganatic marriage) of the last duke of the former line of Este, which became extinct in 1598. The pope Clement VIII then took possession of Ferrara, which had previously formed a part of the Modenese territories, as a reverted fief of the papal see. In 1653, Correggio was added to the duchy by grant of the emperor of Germany, Mirandola, in 1710, and Novellara, in 1737. Hercules III (died in 1803) married the heiress of the duchy of Massa-Carrara, and left an only daughter, who was married to Ferdinand, archduke of Austria, brother of Leopold II. In 1796, the French took possession of the country, and it was included in the Cisalpine republic, and afterwards in the kingdom of Italy. The present duke Francis IV, the son of the arch-duke Ferdinand, is prince of Hungary and Bohemia, and arch-duke of Austria. He was born in 1779, and, in 1812, married a daughter of the king of Sardinia. In 1814, he entered into possession of the estates of his grand father, by virtue of a reversionary investment conferred on his father by the emperor, and his claims were confirmed by the congress of Vienna. He assumed the name of Este, and thus became the founder of the Austrian line of Este. His mother also entered upon the government of the duchy of Massa-Carrara, which she inherited from her mother, and to which the congress annexed the fiefs in the Lunigiana: on her death, in 1829, these passed to her son. The house of Modena-Este also holds the rich *fideicommissa* (see *Fideicommissum*) of the house of Obizzi, in Treviso. The present duke has a son, born in 1819, and two brothers. In consequence of the arbitrary character of the duke's government, an insurrection was organized, and the citizens of Modena, Reggio, Massa-Carrara and other places took arms, with the purpose of extorting from their rulers a more liberal form of government, in February, 1831. The duke was obliged to flee; but in March the Austrian troops entered Modena, at the request of the duke, and restored the authority of the government.

Modena (*Mutina*); capital of the duchy of the same name, situated in a fertile plain, on the canal of Modena, which unites the Secchia and the Panaro, 23 leagues from Florence, 36 from Milan; lat. 44° 38′ N.; lon. 10° 54′ E. It is the see of a bishop, and contains an old cathedral, at the foot of the tower of which hangs the bucket which was the subject of war between the Bolognese and Modenese, and of a mock heroic poem, by Tassoni, entitled *La Secchia Rapita* (the Rape of the Bucket), with a large number of churches. The ducal palace has a fine collection of pictures, and a good library of 80,000 volumes. There are also a university and other institutions, literary and charitable. The fortifications are inconsiderable; the population about 25,000. Natives, Sigonius, Muratori, Tassoni, Fallopius.

Modern; that which belongs to recent times. The term *modern history* is used in different senses. The Germans often date the end of modern history with the French revolution, and call the rest the *most recent history*. In the history of art, literature, customs, &c., *modern* is frequently used in contradistinction to *ancient* or *classical*. (q. v.) "Modern civilization," says A. W. Schlegel, "arose from the blending together of the elements of Northern origin and the fragments of antiquity." (See *Romantic*.) In science, *modern* is also used in contradistinction to *ancient*; thus we speak of *modern* philosophy.

Modillion; an ornament resembling a bracket, in the Ionic, Corinthian, and Composite cornices. In Grecian architecture, however, the Ionic order is without modillions in the cornice, as are also the Roman examples of the same order, with the exception of the temple of Concord, at Rome, which has both modillions and dentils.

Modon (*Mothone*); a strong city and port of the Morea, on the Mediterranean; lat. 36° 51′ N.; lon. 21° 40′ E. It is entirely surrounded by the sea, and connected with the main land by a wooden bridge. The port is unsafe, but important on account of its road and its proximity to the gulf of Coron. The city is small and badly built; the streets narrow and dirty. The Greeks became masters of it in the war of Grecian independence, and, in 1825, Miaulis burnt a Turkish fleet in the road. Ibrahim Pacha took possession of Modon soon after his arrival in the Morea, but was compelled by the French to evacuate it in 1828. Previously to the war, the inhabitants amounted to about 7000. (See *Morea*.) In 1829, they did not exceed 500.

Modulation, in music, is, in its most extensive meaning, the diversified and proper change of tones in conducting the melody, or the progression of tones in general, and the sequences of concords. In its narrower sense, *modulation* signifies that succession of tones by which a musical passage proceeds from one key into another. In quite short pieces, also in long compositions, in which the composition remains for some time in the principal tone before it passes to another, good modulation consists only in continuing for some time melody and harmony in the assumed tone, with proper changes and variety, and at last concluding in that tone. For this it is requisite that, at the very beginning, the concord should become distinctly perceptible by the sound of its essential tones, the octave, fifth and third; and further, that the melody, as well as harmony, should be carried through the tones of the assumed scale, and that no tones foreign to it should be heard, either in the melody or in the harmony. A variety of concords, nevertheless, is necessary, that the ear may enjoy the necessary variety. The composer ought not, after the fashion of some contracted harmonists, to dwell always on two or three concords, or repeat them in transpositions, much less to return and conclude in the principal tone before the piece or the first strain is finished. The rule to let only those tones be heard which belong to the assumed scale is to be understood thus,—that a tone foreign to the scale ought to be used merely in passing, and to be left again immediately; thus, for instance, in the scale *C* sharp, one could certainly go through *G* sharp into *A* flat, and through *F* sharp to the dominant, and from this back again to the principal tone, without violating, by these two tones, foreign to the fundamental tone, *C* sharp, the effect of this scale, or destroying it. It is only necessary to avoid tones totally foreign to the scale of *C* sharp; as, for instance, *C* sharp or *D* sharp. The second kind of modulation, or that which is so called, in a more restricted sense, requires more knowledge of harmony, and is subject to greater difficulty. It consists in the art of giving to longer pieces the necessary variety, by more frequent change of tones, and requires a knowledge of the relation among the various keys, and of the tones connecting them. As it is indispensable, in longer pieces, to carry melody and harmony through several keys, and to return at last to the fundamental, it is necessary, in respect to such modulation, duly to consider the character of the composition, and, in general, whether the modulation has merely in view a pleasing variety, or whether it is intended to serve as the support of a grand and bold expression. Considerations of this kind give to the composer the rules for particular cases, and show where he may depart widely from the principal tone, and where he may remain near it; where he may thus depart suddenly, and perhaps with some harshness, and where his departures ought to be slow and gradual; because such departures are the most important means of musical expression. In pieces of a mild and quiet character, it is not permitted to modulate so often as in those which have to express violent and great passions. Where every thing relating to expression is considered, modulation also must be so determined by the expression that each single idea in the melody shall appear in the tone which is most proper for it. Tender and plaintive melodies ought only to dwell on the flat tones, while the lighter sharp tones, which must be touched in the modulation, on account of the connexion, ought to be left immediately afterwards. It is one of the most difficult parts of the art to remain steadily without fault in a modulation. It is therefore to be regretted that those who write on the theory of the art, dwell so little on this important subject, and believe themselves to have done enough, if they show how the composer may gracefully leave the principal tone, pass through the circle of all the twenty-four tones, and return at last to the first tone. Piccini had the best views of modulation. "Modulating," he says, "is to pursue a certain path. The ear will follow you; nay, it wishes to be led by you, yet upon condition that, after you have led it to a certain point, it shall find something to reward it for its journey, and to occupy it for some time. If you do not consider its claims, it suffers you to go on, at last, without regard, and every endeavor to attract it again is but lost labor." To conduct a melody according to a given modulation; never to deviate from it, except for good reason; and in the right time to return to it in the proper way, and without harshness; to make use of changes in the modulation only as means of expression, and, perhaps, for the necessary variety,—such are the real difficulties of the art; while to leave immediately a key which has hardly been perceived, to ramble about without reason or object; to leap about because the composer does not know how to sustain himself; in one word, to modulate in order to modulate, is to miss the true aim of the art, and to affect a richness of invention in order to hide the want of it.

Module; an architectural measure; the lower diameter of a column being divided into two parts, one is a module; and each module is divided into thirty minutes; thus neither is a determinate, but a proportionate, measure. The term is also sometimes used with reference to the different sizes of medals.

Mœllendorf, Richard Joachim Henry, count von, a Prussian general, born in 1724, was educated at Brandenburg, and, in 1740, admitted among the pages of Frederic II, whom he accompanied in the first Silesian war, and was at the battles of Molwitz and Chotusitz. His behavior procured him promotion, and, in 1746, he obtained a company in the guards. He served at the siege of Prague, in 1757, and at the battle of Rossbach and that of Leuthen; for his conduct on which last occasion, he was rewarded with the order of merit. He was made a colonel in 1761, afterwards lieutenant-general, and, in 1783, governor of Berlin. In the reign of Frederic William II, he was appointed general of infantry, and commanded the Prussian troops employed in 1793, in the disgraceful dismemberment of Poland, on which occasion Möllendorf did every thing in his power to alleviate the misfortunes of the Poles. On his return home, he was created a field-marshal, and, soon after, made governor of South Prussia. He opposed the war with France which followed; but he succeeded the duke of Brunswick in the command of the Prussian army on the Rhine, in 1794, when he gained the victory of Kaiserslautern. He was one of the principal advisers of the treaty of Basle, in 1797, after which he was made grand-marshal. Not being able to prevent, by his advice, hostilities with France, in 1806, though far advanced in years, he accepted a command, and, joining the army of the duke of Brunswick, was present at Jena and Auerstadt, where he was wounded. He retired to Berlin, and, subsequently, to Havelberg, where, according to an odd Prussian usage, he held a prebend in the ecclesiastical chapter. He died there, Jan. 28, 1816.

Mœris; a lake of Egypt. According to Herodotus, with whose account Diodorus and Mela agree, it was, in his time, 3600 stadia, or 450 miles, in circumference, and about 300 feet deep. He states it to have been entirely the product of human industry. Modern travellers describe it as at present about thirty or forty miles long and six broad, and assert it to be a natural basin. The works, therefore, which Herodotus attributes to king Mœris, must have been the canals which connected the lake with the Nile, and the mounds, dams and sluices which rendered it subservient to the purposes of irrigation. (See the works of Pococke, Denon, Belzoni, &c., on Egypt.)

Mœsia; a country lying north of Thrace and Macedonia, and south of the Danube, corresponding to the modern Servia and Bulgaria. It was at a remote period inhabited by Scythians, with whom the Getæ were afterwards united. The country was conquered by the Roman emperors. The barbarians early conquered this region, and it remained in the hands of Sclavonians and Bulgarians. (See *Servia*, and *Bulgaria.*)

Mœsogoths. (See *Goths.*)

Mogador, or **Magadore** (called by the natives *Suera*, or *Suerrah*); a seaport of Morocco, 100 miles west-south-west of Morocco; lon. 9° 20′ W.; lat. 31° 30′ N.; population, according to Jackson, 10,000; to Robbins, 30,000. It was founded in 1760, by Sidi Mohammed, who spared no pains to make it the principal seat of commerce in the empire; and most of the commerce between Europe and the empire of Morocco is carried on through Mogador. It is built in a low, flat desert of accumulating sand, which separates it from the cultivated country. Supplies are brought from gardens from four to twelve miles distant. The town has a beautiful appearance from the sea, the houses being all of stone, and white; but the streets, though regular and straight, are narrow and dirty, and the houses present a mass of dead wall. The houses of the foreign merchants are spacious. The roofs are flat, and the terraces serve as a walk in the evening. It consists of two parts, one of which may be called the citadel, containing the custom-house, treasury, residence of the alcaide, and the houses of the foreign merchants. The Jews, who are not foreign merchants, reside in the outer town. The harbor is about two miles in circuit; but, as the water, at ebb-tide, is only ten or twelve feet deep, large ships must anchor one and a half mile distant from the battery. The exports consist of almonds, gums, bees-wax, goat-skins, olive oil, ostrich feathers, pomegranate-peels, and dates. (See *Morocco.*)

Mogrebbins; Arabs of the western part of Egypt. Many of them are found at Cairo, and are distinguished for their industry.

Mogul. (See *Mongols.*)

Mohammed, the founder of a religion which has spread over a great part of the East, and has been productive of much good by the abolition of the worship of idols, was a scion of the Arabic line of Koreish, and the family of Hashem, celebrated in their country as the princes of the holy city of Mecca, and guardians of the kaaba. The date of his birth is placed with most probability in A. D. 569. Mecca was his native place. His grandfather, Abdul Motalleb, a rich and noble citizen, had thirteen sons. One of them, Abdallah, married Amira, and died while his son Mohammed, or Mahomet, was still a child. As he left little property, Mohammed was educated first by his grandfather, and, after his death, by his oldest uncle, Abu Taleb. This uncle, a merchant, destined Mohammed for the same employment, and was accompanied by him on a commercial journey to Syria. On this occasion, he visited a Nestorian monastery, where he was especially distinguished by one of the monks, and received impressions which perhaps contributed to give the tone to his subsequent character. The Mohammedan writers are very prolix in their descriptions of the wonderful qualities of mind and body for which their prophet was eminent from his youth; he shared, however, the general ignorance of his countrymen. His uncle had recommended him as agent to a rich widow, named Khadijah, and he acquitted himself so much to her satisfaction, that she married him, and thus placed him in easy circumstances. She was fifteen years older than he, but, from gratitude or prudence, he lived with her in happy and faithful wedlock, and, till her death, restrained the sensual appetites which he afterwards indulged. He was still a merchant, and made a second journey to Syria, where he again had interviews with the Nestorian monks. He seems to have had, from his youth, a propensity to religious contemplation, for he was every year accustomed, in the month Ramadan, to retire to a cave near Mecca, and dwell there in solitude. At what time the idea of a new religion came into his mind, whence, in the midst of an idolatrous people, he derived the conviction of the unity of God, and to what degree he blended the ambition to assume the prophetic character with the struggle for personal aggrandizement, are questions to which only conjectural answers can be given. That an untaught Arab should conceive elevated views of the state of man in his age, and found on them comprehensive projects, is not credible: in all probability, his first plans were limited to his countrymen. That he was honest in his zeal to abolish idolatry, and disseminate a purer doctrine, although he sought to obtain this object by deception, may be easily believed, if we remember the many examples of a similar inconsistency in other legislators and religious reformers. Mohammed began his pretended mission A. D. 609, in the fortieth year of his age. He first converted his wife Khadijah, to whom he communicated the particulars of an interview with the angel Gabriel, by whom he was declared an apostle of God. Through her instrumentality, her uncle or cousin Waraka was gained, who is said to have been a Christian, and well acquainted with the Old and New Testaments. These were followed by Mohammed's servant, Zeid, to whom he gave his freedom, and by his young nephew, the fiery Ali. Of great importance was the accession of Abubeker, a man of estimable character, who stood in high respect, and persuaded ten of the most considerable citizens of Mecca to follow his example. They were all instructed by Mohammed in the doctrines of the *Islam*, as the new religion was styled, which were promulgated as the gradual revelations of the divine will, through the angel Gabriel, and were collected in the Koran. (q. v.) Three years passed in the quiet dissemination of his doctrines: in the fourth, Mohammed invited his relatives of the family of Hashem to an entertainment, openly announced to them his prophetic mission, and asked which of them would undertake the office of his vizier. All were silent, till the youthful Ali declared his readiness to do so, and, at the same time, his resolution to inflict vengeance on all who should dare to oppose his master. In vain did Abu Taleb, the father of Ali, dissuade them from the undertaking. But, although he remained himself unconverted, he did much to promote the new doctrines, by protecting Mohammed against his enemies, and affording him refuge in times of danger. On several occasions Mohammed was attacked by the adherents of idolatry with open force, and compelled to change his residence; but he often had the satisfaction of converting his bitterest enemies. In the tenth year of his prophetic office, he suffered a severe loss in the death of Abu Taleb and his faithful Khadijah. Deprived of their assistance, he was compelled to retire, for a time, to the city of Tayef. On the other hand, he was readily received by the pilgrims who visited the kaaba, and gained numerous adherents among the families in the neighborhood. At this time occurred Mohammed's famous nocturnal journey to heaven on the beast Alborak, under Gabriel's guidance, respecting which the Koran contains some obscure intimations. In the twelfth year, the Islam was also spread among the inhabitants of Medina (Yathreb), several of whom swore fidelity to the prophet, and proffered their assistance. Mohammed now adopted the resolution of encountering his enemies with force. Only the more exasperated at this, they formed a conspiracy to murder him: warned of the imminent danger, he left Mecca, accompanied by Abubeker alone, and concealed himself in a cave not far distant. Here he spent three days undiscovered, after which he arrived safely at Medina, but not without danger. This event, from which the Mohammedans commence their era, is known under the name of the *Hegira* (q. v.), which signifies *flight*. In Medina, Mohammed met with the most honorable reception: thither he was followed by many of his adherents. Mohammed now assumed the sacerdotal and regal dignity, married Ayesha, daughter of Abubeker, and, as the number of the faithful continued to increase, declared his resolution to propagate his doctrines with the sword. The hopes of booty added new fervor to the religious zeal of his partisans. Their first great military exploit was the spoiling of a rich caravan, led by Abu Sophian, the chief of the Koreishites, with a strong guard. Mohammed surprised them, with an inferior force, in the valley of Beder, and inflicted on them a total defeat. He took a rich booty, and a number of prisoners. Other successful enterprises followed; but, in the third year of the Hegira, Abu Sophian, with 3000 soldiers, attacked Mohammed with 950 on mount Ohud, not far from Medina. A desperate conflict ensued, in which the Moslems were utterly beaten, and the wounded prophet hardly saved his life. This misfortune naturally shook the authority of him whose pretended mission from God should have secured him the victory. But by attributing the fault to the sins of the Moslems, by promising the slain a paradise provided with all sensual enjoyments, and inculcating an unconditional predestination, he succeeded in restoring his tottering credit. Good need had he of it in the following year, 625, when Abu Sophian appeared before Medina with 10,000 men. Mohammed prudently limited himself to the defensive; but the enemy raising the siege, after twenty days, on account of internal discord, Mohammed, under the pretence of a divine command, led his party against the Jewish race of Koreidha, who had made common cause with the enemy. After twenty-five days, the Jews were compelled to surrender their chief fortress to the will of the conqueror, who took the most bloody revenge, slaughtered between 600 and 700 men, and carried away the women and children into captivity. Some years afterwards, he also took Khaibar, the principal seat of the Jewish power in Arabia, by which means he completed the subjugation of this unhappy people. It is probable that the many murders and cruelties practised on his enemies were sufficiently justified in the eyes of his followers, by his divine mission; but they must have been highly offended by the violation of all right and decency, of which he was guilty in his passion for Zeinab, the wife of his emancipated slave and adopted son Zeid, while a particular chapter was introduced into the Koran, to give him power to marry her; this he did publicly, without regard to a degree of relationship which the Arabs had hitherto held inviolable. This weakness, with respect to the female sex, increased with the years and authority of Mohammed. Besides the numerous wives, whom he took at different times, he indulged in several transient amours, such as are forbidden in his own laws, and always justified his incontinency by new chapters in the Koran. That such shameless pretences could have any effect rather proves the credulity and fanaticism of the people than his own talents of deception. At the same time, his doctrines and authority gained ground among the neighboring tribes. The expeditions of his officers rarely failed to produce a considerable booty. He was himself almost worshipped by his partisans. His views, meanwhile, continued to expand, and, in the seventh year of the Hegira, he sent a summons to the principal neighboring princes, particularly Chosrou Parviz, king of Persia, Heraclius, emperor of Constantinople, Mokawkas, ruler of Egypt, the king of Ethiopia, and the princes of various districts of Arabia, to embrace the new revelation of the divine law, made through him. The manner in which this embassy was received differed according to the power and pride of those to whom it was directed. The more remote and powerful gave no heed to it: on the contrary, the weaker and nearer, who were informed of his increasing power, had cause to fear his arms. It was of particular importance to him no longer to be an exile from Mecca, the holy city, which was in a high degree the object of the adoration of the Arabs. He appeared, therefore, at the head of 1400 men, with the ostensible purpose of peaceably visiting the temple of Mecca. The Koreishites opposed his entrance, and compelled him to a treaty, in the seventh year of the Hegira. For three days only, he and his partisans were to be allowed to pay their devotions, unarmed, in the kaaba; on the fourth day, he was to withdraw. He succeeded, however, on this occasion, in converting three persons of influence among the Koreishites, who had afterwards still greater renown among the Moslems—Caled, Amru and Othman. In the eighth year of the Hegira, a Mohammedan army, under Zeid's command, advanced against the city of Muta, in Palestine, where the governor of the emperor Heraclius had murdered a Moslem ambassador. Zeid was slain, and the defeat of the Moslems was prevented solely by the courage of Caled, who, on this occasion, obtained the appellation of "sword of God." A breach of compact on the part of the Koreishites gave Mohammed the desired opportunity to lead against Mecca 10,000 well-armed soldiers, inspired by pious zeal. The terrified Koreishites made little resistance, and received life and liberty only on condition that they embraced the Islam. The idols of the kaaba were demolished, but the sacred touch of the prophet made the black stone again the object of the deepest veneration. The temple became the principal sanctuary of the religion of Mohammed, and its professors alone are allowed access to the holy city of Mecca. This important event took place in the eighth year of the Hegira. The destruction of some celebrated idols, and the subjugation of various Arab tribes, now employed the Moslem arms. In the valley of Honain, not far from Mecca, where Mohammed incurred great personal danger, he achieved the victory only by the utmost exertions. The following year the Mohammedans call the "year of embassies," because a number of Arab tribes announced by deputies their submission and conversion. At the head of 30,000 men, among whom were 10,000 cavalry, Mohammed was resolved to anticipate the hostile plans of the emperor Heraclius. He marched into Syria to Tabuk, half way to Damascus, but returned to Medina, and contented himself with summoning the emperor in writing to embrace his doctrines. After his return, he promulgated a new chapter of the Koran, revoked all regulations in favor of idolaters, and declared all the compacts concluded with them null. He might now be regarded as master of the whole of Arabia, although all the inhabitants had not yet received his religion. He allowed the Christians a free exercise of their worship on the payment of a tribute. In the tenth year of the Hegira, Mohammed undertook his farewell pilgrimage to Mecca. On this occasion, he was surrounded with the utmost splendor, and attended by 90,000, or, as some say, 150,000 friends. This was the last important event of his life. He died soon after his return to Medina, in the arms of his wife Ayesha, in the eleventh year of the Hegira, in his sixty-third year. Of all his wives, the first alone bore him children, of whom only his daughter Fatima, wife of Ali, survived him. The Mohammedan writers undoubtedly exaggerate the corporeal and mental endowments of their prophet: it is, however, very credible, that there was a prepossessing majesty in his appearance, and that he united much natural eloquence with a decisive and enterprising mind. By these gifts, he succeeded in exalting himself above his equals, and gaining confidence and popularity. Compared with his countrymen, he stands preeminent; compared with other legislators and monarchs, he holds but an inferior rank. Whether he himself believed what he promulgated as a divine revelation is a hard question to answer. Most probably he ought to be regarded as a religious enthusiast, who deemed himself actually inspired by the Divinity, but was not so entirely blinded as to overlook the means of making his doctrines acceptable to the people, and of confirming his dominion over their minds. Thence the fabrication of his interview with the angel Gabriel; thence his visionary journey through the seven heavens of paradise; thence his indulgence of the sensual desires of a sensual people. The first tenet of his creed was, "Allah alone is God, and Mohammed is his prophet." At the same time, Moses and Christ were regarded, in his system, as divinely inspired teachers of former times, and he by no means denied the authenticity of the sacred histories and revelations of ancient Judaism and Christianity, which he only believed to be corrupted. The paradise which he promised to his faithful adherents was a heaven of sensual pleasure; he himself perhaps anticipated no other. His morality was compiled from the ancient Jewish and Christian systems. The faithful adoration of Allah as the only God, unwavering obedience to the commands of the prophet, the necessity of prayer, charity to the poor, purifications, abstinence from forbidden enjoyments (especially from strong drinks—this prohibition was caused by the quarrels that arose among his adherents), bravery, upholding even to death the cause of God, and entire resignation to unavoidable fate, are the chief points of his moral system. Of solemnities, fasts and usages such a religion for a sensual people could not be destitute; but the injunction of a pilgrimage to Mecca and Medina was unquestionably a political measure, in order to sanctify for ever the original seat of the Islam, and to secure permanently the political and religious importance of Arabia. These doctrines are contained in the Koran, to which was soon after added a second collection,—*Sunna* (second book of the rules of life, founded on Mohammed's example). But all Mohammedans do not receive the latter: those who do, are therefore called *Sunnites*. One of the principal means of the rapid and extensive diffusion of his doctrines and dominion was force, all who did not submit of their own accord being compelled to do so at the edge of the sword. Rarely do we find in his history any traces of his having made use of women for promoting his plans, although he allowed polygamy, with some restrictions, and concubinage without any bounds. That he persuaded his first wife that the attacks of epilepsy which he had were celestial trances, and that she first procured him adherents by the propagation of this fable, seems to be a tale, devised by his Christian opponents, to expose the prophet to contempt. Certain it is that he himself declared he did not work miracles. His disciples, nevertheless, ascribe to him the most absurd miracles; for example, that a part of the moon fell into his sleeves, and that he threw it back to the heavens; that stones, trees and animals proclaimed him aloud to be the prophet of God, &c.; but of such fables we find abundance in the legends of the Christian saints. In a moral view, he can never be compared with the divine Founder of Christianity. His system has been widely propagated in Asia and Africa. The reverence which the faithful Moslems pay to the prophet, and all that is connected with him in the remotest degree, is as great as the reverence of relics has ever been in Christendom: thus, for example, the camel which carries the Koran to the kaaba, and, in the territory of Mecca, an enormous number of doves, which must not even be scared from the fields, much less be killed, because they are thought to be descended from the dove that approached the ear of Mohammed, are objects of the most sacred reverence. But the wonder-loving populace alone gives credence to the fable that Mohammed's coffin is suspended in the air: on the contrary, he lies buried at Medina, where he died, and an urn, enclosed in the holy chapel, constitutes his sepulchre, which is surrounded with iron trellis work, and is accessible to no one. The (so called) *Testament* of Mohammed is a spurious work of later times. Mohammed's doctrines have given rise to many sects, among which the Sunnites and Shiites, the chief ones, still entertain the most violent mutual hatred among the Persians and Turks. (See *Hist. of Mohammedanism*, &c., by Charles Mills; also the articles *Koran*, and *Islam.*)

Mohammed II, Turkish emperor, surnamed Bujuk, the Great, born at Adrianople in 1430, succeeded his father, Amurath II, in 1451. He renewed the peace made by his predecessor with the Greek emperor, but resolved to complete the conquest of the enfeebled Greek empire by the capture of Constantinople. The Christian powers in Europe remained quiet spectators. April 6, 1453, Mohammed appeared before Constantinople, to which he laid siege with an army of 300,000 soldiers, and by water with 300 galleys and 200 small vessels. The besieged had drawn strong iron chains before the harbor, and made a brave resistance, though they had but about 10,000 men to oppose so great a force. But Mohammed, having contrived to get a part of his fleet over land into the harbor, and caused a bridge of boats to be constructed and occupied with cannon, the Greeks were overcome, after a defence of 53 days, and the empire came to its end. The city was taken by storm on the 29th May, and abandoned to pillage. The emperor Constantine Palæologus fell, at the commencement of the assault, sword in hand. In a few hours, the conquest of the city was completed. The conquerors gave themselves up to all cruelty and excess. During the sack, a young princess, named Irene, was brought to Mohammed, and for three days he compelled her to satisfy his passion. Some janizaries murmured, and a vizier even dared to reprove him. Mohammed immediately sent for the captive, took her by the hair, and murdered her before the discontented, with the words "Thus Mohammed deals with love." When he entered the city, he found it desolate; but as he designed it for the principal seat of his empire, he strove to attract new inhabitants by promising the Greeks full religious liberty, and permitting them to choose a new patriarch, whose dignity he himself increased. Constantinople under him soon became again flourishing. He restored the fortifications, and, for greater security, caused the forts called the *Dardanelles* (q. v.) to be erected at the mouth of the Hellespont. Mohammed pursued his conquests, which were checked for a time by Scanderbeg, prince of Albania, who was favored by the mountainous character of the country. The sultan finally concluded peace with him, but after Scanderbeg's death, in 1466, soon subjugated all Albania. His further advances into Hungary were prevented by the celebrated John Hunniades, who obliged him, in 1456, to raise the siege of Belgrade, in which he had lost 25,000 men, and had been himself severely wounded. The son of the great Hunniades, king Matthias Corvinus, also kept the Turks from Hungary, and even took from them Bosnia. On the other hand, Mohammed conquered, in a short time, Servia, Greece, and all Peloponnesus, most of the islands of the Archipelago, and the Greek empire of the Comneni, established in the beginning of the 13th century, at Trebisond, on the coast of Asia Minor. The Christian powers began to be apprehensive of the progress of his arms, and, at the instigation of pope Pius II, in 1459, a crusade against the Turks was resolved upon at Mantua, which was never, however, executed, on account of the bad constitution of most of the European states. From the republic of Venice Mohammed tore Negropont, in 1470. He also stripped them of other possessions, and took Caffa from the Genoese, in 1474. Frequent wars with the Persians prevented the further prosecution of his enterprises against the Christian powers. In 1480, he attacked the island of Rhodes, but was repulsed by the knights, with great loss. He now turned his arms against Italy, took Otranto, and would probably have pursued his conquests in this country but for his death, in 1481, on an expedition against Persia. During his reign of 30 years, he had conquered 12 kingdoms and upwards of 200 cities. On his tomb he ordered the words to be affixed, "I would have taken Rhodes and conquered Italy," probably as a stimulus to his successors. His character was distinguished by talents, ambition, courage, and fortune, and disgraced by cruelty, perfidiousness, sensuality, and contempt of all laws. He spoke Greek, Arabic, and Persian; understood Latin; drew and painted; had a knowledge of geography and mathematics, and of the history of the great men of antiquity. In short, he would have been a hero, had not his cruelties blackened his reputation. Policy sometimes kept in check the impetuosity of his character; but he was too often the slave of passions, though all the cruelties ascribed to him are not to be credited.

Mohammed IV, born in 1642, was raised to the throne while a boy of seven years, his father, Ibrahim, having been murdered in an insurrection of the janizaries. His grandmother, an ambitious woman, managed the government, but perished in a revolution of the seraglio. The celebrated grand-vizier Mohammed Kuperli (or Kuprili) was now placed at the head of the government. To this great minister, and to his equally great son and successor, the Turkish empire was indebted for the consequence which it maintained till the end of the 17th century. Mohammed was himself an insignificant personage, whose principal passion was the chase. Kuperli turned his chief attention to the restoration of the internal tranquillity of the empire, to which he sacrificed a great number of persons. The war begun in 1645 against the Venetians, mainly respecting the island of Candia, was, therefore, but weakly prosecuted. But, in 1667, Achmet Kuperli, one of the greatest Turkish generals, undertook the famous siege of this island (see *Candia*), which lasted two years and four months. The capitulation was signed September 5, 1669, at the same time with the terms of peace between Venice and the Turks. A war had already broken out (1660) with the emperor Leopold, on account of Transylvania. The Turks had made considerable progress in Hungary, when they were totally defeated, August 3, 1664, by Montecuccoli, at St. Gothard. Nevertheless, to the astonishment of all, the emperor accepted the disadvantageous truce of Temeswar, of 20 days, proffered by the Turks. Never had the Turks approached so near the boundaries of Germany as now. The anarchy which prevailed in Poland under king Michael, and the disturbances of the Cossacks, gave occasion, in 1672, to a war of the Turks against Poland, which had to purchase peace on ignominious conditions. But the great Polish general John Sobieski revenged the ignominy of his nation by a decisive victory at Chоczim, in 1673, and, in 1676, obtained from the Turks an honorable peace. Sobieski also contributed most essentially to the relief of Vienna, which was besieged for more than six weeks by the grand vizier Kara Mustapha, with 200,000 men, in the war caused, in 1683, by the malcontents in Hungary. The Turks were attacked in their camp, September 2, by the allied Christian army, and defeated, with extraordinary loss. The grand-vizier atoned for his ill success with his life. The emperor, Poland, Russia, and Venice, now concluded an alliance against the Turks, who suffered losses in every quarter:—for example, they were utterly defeated at Mohacz by Charles, duke of Lorraine. As all these misfortunes were attributed to the effeminacy and inactivity of the sultan, Mohammed IV, he was deposed in 1687, and died, in prison, in 1691.

Mohammed Ali (also **Mehemmed Ali**) Pacha, viceroy of Egypt, is of Turkish origin, and was born at Cavala, in Macedonia, in the year 1769. By his boldness, sagacity and courage, he has raised himself from an humble station to that of a sovereign, before whom Arabia and Nubia tremble, and who is flattered by his proud master, the Porte. He has ruled Egypt since 1806, on European principles. From his youth, Mohammed exhibited an extraordinary penetration, uncommon dexterity in all bodily exercises, and a fiery ambition. The Turkish governor at Cavala gave this poor young orphan a common education, and then an office and a rich wife. Reading and writing he learnt after he had become a pacha. A merchant of Marseilles, named Lion, who lived in Cavala, and was his patron, inspired him with an inclination towards the French, and with religious tolerance. On this account the residence of strangers in Egypt has been facilitated. In 1820, the viceroy gave the family of Lion proofs of his gratitude. His first employment was the tobacco trade, and he is now engaged in great commercial enterprises, extending even to India. His first campaign was in Egypt, against the French (1800), as commander-in-chief (*binbashi*) of the contingent of Cavala. The capitan pacha, who was a witness of his bravery in the battle of Rahmanieh against general Lagrange, elevated him to a higher post, in which he also acquired the favor of the Albanian troops. He established his reputation as a soldier in the long contest of the pachas with the mamelukes, after the French had abandoned Egypt in 1802; but soon after the governor became jealous of the ambitious Mohammed, and, to get rid of him, obtained his appointment as pacha of Saloniki. Mohammed's influence was already so great, that the inhab itants of Cairo took arms in his favor, and the ulemas and sheiks represented by agents to the divan of Constantinople, that Mohammed alone was able to restore order and tranquillity to Egypt, which the governor Khurschid Pacha plundered and oppressed. At the same time, they conferred on him the office of governor; but the prudent Mohammed refused the external dignities of the office, although in secret he directed affairs. At length the Porte (April 1, 1806) confirmed him as governor of Egypt, and elevated him to the rank of a pacha of three tails. He maintained himself in this office by the attachment of the Albanians and the influence of France, when the Porte had been prevailed on by the English to appoint, in his stead, the mameluke Elfy Bey, governor of Egypt. Mohammed soon restored the distracted country to order, accustomed the undisciplined troops to obedience, and compelled the English, who, in March, 1807, had occupied Alexandria, after several battles, to leave Egypt in September. He then reduced the mameluke beys to subjection, and, in March, 1811, on a festive occasion, perfidiously murdered 470 of them; the rest were decapitated. They were accused of secret plots. The French mamelukes alone remained unmolested. (See *Mamelukes.*) From this time tranquillity reigned in Egypt. The campaign of Ibrahim Pacha, the second son of the viceroy (the first died in the field), against the Wahabees, in 1816, had a successful issue; he deprived that sect of Mecca and Medina, conquered their capital, Derayeh, in 1818, and sent their leaders prisoners to Constantinople. The expedition to Nubia and Sennaar, in 1821, which the French traveller Cailliaud (see *Meroë*) accompanied, in the expectation of discovering gold mines, ended with the murder of the leader, Ismael Pacha, the youngest son of the viceroy. At the same time Mohammed directed the internal administration of affairs. Armies and fleets, fortifications, and the maintenance of the troops, were established upon the European plan; telegraphs and Congreve rockets were prepared; the ulemas were transformed into paid officers; agriculture was extended, the races of sheep and horses improved; commerce and manufactures flourished; Europeans were protected and rewarded, and learned travellers encouraged. Ismael Gibraltar and others were sent, in 1818, to Europe, in order to form alliances; the canal of Mahmoud was dug, connecting Cairo with Alexandria; olive and mulberry trees, hitherto unknown in Egypt, were planted, sugar refineries, and saltpetre manufactories, and cannon founderies established, quarantine rules and vaccination introduced, schools founded, &c.—The British, French and other nations now sought the friendship of Mohammed. The Porte was terrified at his power, as he had, during the struggle with the Greeks, established himself in Candia. He was, however, appointed commander-in-chief against the Greeks in 1824; but he sent his son Ibrahim, at the head of an army of 16,000 men, together with a fleet under the command of Ismael Gibraltar, who was to conquer the Morea, and establish a negro colony there. The latter, with the capudan pacha, was defeated in several naval actions, in September, 1824, by the Greek admiral Miaulis, and Canaris, the commander of the fire-ships; but a second Egyptian expedition succeeded, in March, 1825, in effecting a landing at Modon, and captured Navarino, Tripolizza, and other places. Ibrahim then laid waste the Morea, and sent its inhabitants as slaves to Egypt. In October, 1827, a third expedition of the viceroy was blockaded in the harbor of Navarino by the English admiral Codrington and the French admiral De Rigny, in consequence of the treaty of July 6, 1827, and it was required of the viceroy by the allied powers, that he should refrain from every act of hostility towards Greece. The combined Turkish and Egyptian fleets were shortly after destroyed at this place. (See *Navarino.*)—Mohammed is, in reality, the sovereign of Egypt, though he preserves the external marks of respect towards the grand seignior. He is a despot, and is obliged to be so; but at the same time he possesses political knowledge, and often exhibits magnanimity. He is the absolute lord of the soil and all its productions. He holds the monopoly of the productions of Egypt, and of the East India goods which pass through Egypt; only a few houses, designated by himself, are permitted to take part in the commerce. The purchase of ships of war in France, and his expeditions against the Morea, exhausted his treasures, and caused oppressive taxes. In Egypt, he protects the Greeks as well as the Franks; he causes young Turks to be educated in Paris in the European manner; the Christians possess his confidence, but there is no security for the permanence of his plans. Ibrahim himself appears not to approve of his father's projects of colonization and civilization. Had Mohammed Ali never been stained with treachery and murder, he would perhaps deserve to be called the second Saladin of Egypt.—See Mengin's *Histoire de l'Egypte sous le Gouvernement de Mohammed Aly*, etc. (Paris, 1823, 2 vols.); *Histoire de la Régénération de l'Egypte*, by Planat, a staff-officer in the pacha's service (Geneva, 1830); the travels of Madden, Lushington, Hanniker, Minutoli, &c. Mohammed has a grandson, whom he is carefully educating, and two married daughters. (See the articles *Egypt*, *Nubia*, *Wahabees*, *Greece*, *Revolution of*). In 1827, he had twelve regiments organized, clothed in uniform, and armed after the European manner, each regiment consisting of 4000 men. They were raised by impressment, from the Arabs and peasantry.

MOHAMMED, Sheik; the founder of the famous sect of the Wahabees, who derive their appellation from Abd el Wahab, the father of Mohammed. (For an account of him, see the article *Wahabees.*)

MOHAMMEDAN ERA. (See *Epoch.*)

MOHAWK; a large branch of the Hudson or North river of New York, which rises in the north-east part of Oneida county, about twenty miles north of Rome, to which place it runs nearly south, and then turns eastward towards the Hudson, which it enters by several mouths, between Troy and Waterford, after a course of about 135 miles. Its source is within a short distance of Black river, of lake Ontario; and from Rome it winds along through a deep valley, bordered in many places by high and broken hills, and in others by extensive and very valuable alluvial tracts. The stream of the Mohawk is unequal, with many breaks and rapids, and two considerable falls. The following estimates are from Spafford's Gazetteer of New York:—From Rome to Utica, 16½ miles, is a descent of 26 feet; Utica, to the German flats, 16 miles, 19½ feet; German flats canal to head of Little falls, 6 miles, 42 feet; Little falls to Palatine bridge, 19½ miles, 34 feet; Palatine bridge to Schenectady, 40 miles, 76½ feet; Schenectady to head of Cahoos, or Cohoes, falls, 12 miles; falls 70 feet; and thence to the Hudson, 2 miles, is a descent of about 70 feet. With the aid of canals, the Mohawk is navigable from Schenectady to Rome; but it serves the purposes of navigation principally by feeding the numerous canals which cross it or range near its borders. It is remarkably well adapted for supplying water-power for all manufacturing purposes. The land on its borders is very rich. It is excellent for wheat, and good also for all common purposes of agriculture.

MOHAWKS; a tribe of North American Indians, belonging to the confederacy of the Five (afterwards Six) Nations. (See *Iroquois.*) With the rest of the confederacy, they adhered to the British interest during the war of the revolution, and left the country, on its termination, for Canada, where lands were assigned them on the Grand river. Their village is composed of houses built of logs, with few of the conveniences of civilized life. The Mohawks lived originally on the river which still bears their name, and were remarkable for their courage and ferocity. Brandt was a Mohawk chieftain.

MOHICANS, or MOHEGANS; a tribe of Indians formerly occupying the western parts of Connecticut and Massachusetts. (See *Iroquois.*)

MOHS, Frederic, professor of mineralogy at Vienna, was born in Anhalt-Bernberg, about 1774, and was destined for a mercantile career, which, however, his inclination for the sciences, particularly the mathematical, induced him to abandon. After studying two years at Halle, he went to Freiberg in 1798, and there became acquainted with the Wernerian geognosy and made himself familiar with practical mining. In 1802, Mohs went to Vienna, and there drew up (1804) a description of Van der Null's mineralogical cabinet, in which appear the germs of his method, as afterwards developed in his later works. His zeal for the study of mineralogy led him to make several scientific tours in different parts of Austria, and in 1810—11, the Austrian government employed him in similar expeditions in the public service. On the establishment of the institution at Gratz, the professorship of mineralogy was conferred on Mohs, who continued to lecture there until 1818, when he made a tour through Great Britain, and examined the mines of that country. His *Versuch einer Elementarmethode zur Naturhistorischen Bestimmung der Mineralien* had been published in 1813. In Edinburgh, he renewed his acquaintance with Jameson (q. v.), who had studied with him at Freiberg, and whom he found to entertain views similar to his own on the subject of the natural history of minerals. In the same year (1818), Mohs was appointed royal Saxon commissioner of the mines, and professor of mineralogy at Freiberg, and, in 1826, was created professor of that science at Vienna. The principal works of Mohs are his *Charakteristik des Naturhistor. Mineralsystems* (Dresden

1820; new edition, 1821), and *Grundriss der Mineralogie* (1822—24). (See *Mineralogy.*)

Moidore, or **Moed'or**, or **Moeda**; a gold coin formerly used in Portugal (from 1690—1722) of the value of six dollars.

Moines, Des, the largest western tributary of the Mississippi above the Missouri, enters the Mississippi in about latitude 40°. It is 150 yards wide at its mouth, and is supposed to be 800 miles long, and navigable for boats for 300 miles.

Moira, Earl of. (See *Hastings, Francis.*)

Moitte, Jean Guillaume, a French statuary, was born at Paris, in 1747, of a family which produced several distinguished engravers and architects, and early displayed so much talent for drawing, that Pigalle, then the most eminent sculptor in Paris, requested that he might receive the young artist as a pupil. In 1768, Moitte went to Italy, and studied the remains of ancient art, without, however, neglecting the study of nature. He returned to France in 1773, was one of the first members of the national institute, received the cross of the legion of honor from Napoleon, and died in 1810. His works are distinguished for correctness of design, elevated conception, beauty of proportion, variety of expression, and delicacy of taste. A statue of a *sacrificateur* (1783); the bass-reliefs of several of the barriers of Paris; that of the frontispiece of the Pantheon, representing the country crowning the civic and warlike virtues (destroyed after the restoration, when the Pantheon was consecrated as the church of St. Geneviève); that for the tomb of Desaix; several bass-reliefs in the Louvre, representing the muse of history, with Moses and Numa; warriors devoting themselves for their country, in the chamber of peers,—are among his principal productions.

Mola, Peter Francis, an eminent painter, was born at Coldra in 1621, or at Lugano in 1609. He was the pupil of the cavalier D'Arpino and of Albani. On leaving the last master, he went to Venice, and studied under Guercino, perfecting himself in coloring from the productions of the Venetian school. On his return to Rome, he painted several scriptural pieces for popes Innocent X and Alexander VII, of which that of Joseph discovering himself to his brothers, in the Quirinal, is the most esteemed. He is still more distinguished as a landscape painter, for his varied composition and vigorous touch. In 1665, he received an invitation to the court of Louis XIV, with which he was about to comply, when a sudden disorder carried him off. There was another *Mola* (*John Baptist*), said by some to be his brother, who acquired some reputation in history and landscape; but he is much inferior to the preceding.

Molai, James de, the last grand-master of the order of the knights Templars, of the family of the lords of Longwie and of Raon. He was admitted into the order about 1265, and, on the death of William de Beaujeu, was unanimously elected to the office of grand-master. The wealth and power of the Templars, their pride and their dissolute manners, created them a multitude of enemies, and led to their destruction. In 1307, an order was issued for the general arrest of the knights throughout France. They were accused of heresy, impiety, and other revolting crimes. Fifty-seven were burnt in 1311, and the order was abolished the following year, by the council of Vienne. Molai, with his companions, Guy Dauphin of Auvergne and Hugh de Peralde, was detained in prison at Paris till 1313, when their trial took place before commissioners appointed by the pope; and, confessing their crimes, they were condemned to perpetual seclusion. Molai and Guy, having subsequently retracted their confessions, which they had made in the hope of obtaining their freedom, were executed as relapsed heretics. They perished in the flames at Paris, March 18, 1314, declaring their innocence to the last. (See *Templars.*)

Molar Teeth. (See *Teeth.*)

Molasses, or **Melasses**; the liquid or uncrystallizable part of the juice of the sugar-cane, which separates from the granulated part or sugar. (See *Sugar.*) The name is also applied to the similar portion of any other vegetable juice from which sugar is obtained.

Moldau; a river of Bohemia, which rises in the Bőhmerwald (Bohemian forest), flows north through Bohemia, by Budweis and Prague, and empties into the Elbe opposite to Melnik, and thus furnishes Bohemia a communication with the North sea. A project was formed for uniting the Moldau, by means of a canal, with the Danube; but, on account of the difficulty of cutting through the mountains, a railroad has been considered a more practicable undertaking. (See *Austria.*)

Moldavia (in German, *Moldau;* Turkish, *Bogdan*); a province of the Ottoman empire, with the title of *principality*, extending from lat. 45° 12′, to 48° 5′ N., and from lon. 25° 10′ to 28° 20′ E.; bounded on the east by the Russian province of Bessarabia, from which it is separated by the Pruth, on the south by Bulgaria and Walachia, and on the west by Transylvania; superficial extent, 17,000 square miles; population differently stated at from 360,000 to 500,000. Previously to the treaty of 1812, it extended eastward to the Dniester, with a superficial area of about 34,000 square miles, and a population of 800,000. The western part of the country is mountainous, branches of the Carpathian chain projecting towards the interior; the southern is low and marshy. The winters are severe; the heat is great in summer, but the nights are cool. The soil is fertile, but war and an oppressive government have prevented it from being well cultivated. Corn, fruits, wine, honey, wax, and tobacco of an inferior quality, are among the principal productions; the gold, silver and iron mines are not worked; mineral salt and salt-petre are produced in large quantities. The greater part of the country is devoted to pasturage, and immense numbers of horses, black cattle, sheep and swine are raised by the inhabitants. The horses are strong, active and gentle, and 10,000 have been exported annually to Austria and Prussia. The cattle are of an excellent quality, and have been sent generally to Poland and Russia. The inhabitants are strongly attached to the Greek church. The Moldavians are supposed to be descendants of the ancient Dacians, whose country they occupy, of Roman colonists, and of the Sclavonians, who conquered Moldavia. Their language is a corrupt Latin, mixed with Sclavonic. They call themselves *Rumuni*, or *Rumniasti*, probably a corruption of *Romani*. They are described as ignorant, indolent, treacherous and vindictive; although not slaves, they have always been the subjects of the severest oppression. The different professions and trades are almost entirely in the hands of Armenians, Jews, Italians and Russians. The capital of the province is Jassy (q. v.), which is also an archiepiscopal see; Okna and Galacz are the other principal towns; the Pruth and the Sereth, both emptying into the Danube, are the chief rivers. Moldavia has generally shared the fate of Walachia, with which, under the Romans, it formed the province of Dacia Transalpina (beyond the Carpathian). Bogden, a Walachian chief, established himself in the country in the twelfth century, and from him it was called *Bogdiana*, but afterwards received the name of *Moldavia*, from the river Moldava, a branch of the Sereth. Although the Walachians and Moldavians were of the same origin, and spoke the same language, they were often at war with each other, and formed two independent states. (See *Walachia.*) In the fourteenth century, Moldavia became tributary to the kings of Hungary, and in the beginning of the sixteenth century, became a dependant of Turkey. The inhabitants were permitted to retain their laws and privileges, and the free exercise of their religion, and to appoint their waywode, or hospodar. In the beginning of the eighteenth century, the Porte assumed the right of appointing the hospodar, and from that time the dignity was sold to the rich Greeks of Constantinople, who practised every means of extortion upon the inhabitants. In 1812, the region lying to the east of the Pruth was ceded to Russia. In 1821, the hospodar Michael Suzzo, a Greek, received the Greek insurgents with open arms, and raised the standard of revolt. Turkish armies were poured into the unhappy province, which became a scene of the most barbarous atrocities. (See *Greece*, *Revolution of*, and *Ypsilanti*). It was not evacuated until 1826, after the most pressing demands of Russia. It was then stipulated that the hospodars should be chosen by the Boyards, from their own number, for a term of seven years, subject to the confirmation of the Porte. In 1828, the Russians occupied Moldavia without resistance. By the peace of Adrianople, 1829, it is provided that the hospodar shall be named for life; that the province shall pay a tribute of 165,000 piastres to Turkey, and be subject to no requisitions; that no Turk shall reside in the country, which remains in the hands of Russia till indemnification for the expenses of the war shall be made by the Porte. (See *Russia*, and *Ottoman Empire.*)

Mole (*talpa*). The animal so well known in the U. States under the name of *mole*, belongs to a wholly different genus of quadrupeds from the common mole of Europe, and has been very appropriately named *shrew mole* (q. v.), by the late doctor Godman. It appears exceedingly doubtful whether the true mole has ever been found in this country, all the evidence of its existence here being furnished by a manuscript note of Bartram, which, in all probability, referred to the shrew-mole, as the true mole has never been detected by any of our recent naturalists. The mole is from five to six inches in length: its head is large, without any external ears, and its eyes so very minute, and concealed by its fur, that it is a vulgar opinion, that it is deficient in these important organs. Its fore-legs are very short, and extremely strong and broad, turned outwards, by which conformation it is enabled to burrow with great ease. The snout is slender, strong and tendinous, and it has no external appearance of a neck. The females bring forth four or five young, about the month of April, for the preservation of which, the parents construct a habitation, with great intelligence and care. They first raise the earth by forming an arch, leaving partitions or pillars at certain distances; beat and press the earth, interweave it with the roots of plants, and, at last, render it so hard and solid, that the rain cannot penetrate. They then raise a small hillock under the principal arch, on which they construct the nest for their young. This internal hillock is pierced with sloping holes, which serve as passages for the parent animals to go out. These paths are firm, and extend about twelve or fifteen paces, issuing from the nest like rays from a centre.—Moles live in pairs, and are chiefly found in places where the soil is loose and soft, and affords the greatest quantity of worms and insects. They exhibit great dexterity in skinning the worms, which they always do before they eat them, stripping the skin from end to end, and squeezing out all the contents of the body. The skin of the mole is extremely tough; its fur is close set, and as soft as the finest velvet: it is usually black, but has sometimes been found spotted with white, and, more rarely, altogether of that color. Though common in almost all parts of Europe, it is said to be entirely unknown in Ireland. Linnæus says that it passes the winter in a state of torpidity: in this, however, he is contradicted by Buffon, who states, that it sleeps so little in winter, that it burrows in the same manner as in summer. The destruction caused by these little animals is sometimes very great; and such are their numbers, that Buffon caught 1300 of them in three weeks. In Holland, we are also told that they were so numerous, in 1742, as to destroy the hopes of the agriculturists. Even in ancient times, it appears that they were considered as pests, and a temple was erected, in Æolia, to Apollo Smintheus, or the destroyer of moles. From an account given by Mr. Bruce, in the Transactions of the Linnæan Society of London, it appears that the mole is able to swim great distances. Doctor Darwin has given a very interesting paper on these animals in his *Phytologia*, and of the best methods of capturing them, to which we refer those of our readers who wish for fuller information.

Mole Cricket (*gryllus gryllo-talpa*, L.). The legs and fore-feet of these insects are very large and strong, and placed, like those of the mole, so as to be useful in burrowing. They commonly live under ground, through which they can burrow with great rapidity. The female forms a nest of clay, about as large as a hen's egg, and deposits in it nearly a hundred and fifty eggs, about the size of a grain of rice. These the mother defends with extreme vigilance; and some of her contrivances for the preservation of her offspring are very curious. Wherever a nest is situated, fortifications, avenues and entrenchments surround it: there are also numerous winding passages which lead to it, and the whole is environed by a ditch, which presents an impassable barrier to most insects. They are very destructive in gardens, by dividing or injuring the roots of plants; but it appears that this is done less for nourishment than in making their burrows, as their principal food consists of insects and worms. The male has a chirp, or note of a low, jarring sound, which may be heard in the evening and night. At the approach of winter, the mole crickets remove their nests to so great a depth in the earth as to avoid any injury from the frost. When the mild season returns, they raise it in proportion to the advance of the warm weather, and at last elevate it so near the surface as to permit the sun and air to act on it. Their favorite residence is in hot-beds, where they occasion havoc. In France, they are known under the name of *courtilières*. (See White's *Natural History of Selborne*; and a paper by M. Feburier, *Nouv. Cours d'Agricult.*) No method has yet been discovered of preventing the depredations of these pernicious vermin. But as most of this kind of insects are averse to the smell of hog's dung, the use of this article would probably expel them from infested places.

Mole; a mound or massive work formed of large stones laid in the sea, extended either in a right line or an arch of a circle, before a port, which it serves to defend from the violent impulse of the waves, thus protecting ships in a harbor. The word is sometimes used for the harbor itself. The Romans used it for a kind of mausoleum, built like a round tower on a square base, insulated, encompassed with columns, and covered with a dome.

Molé, Matthew, president of the parliament of Paris, and an eminent statesman, was born in 1584. His father, also president of parliament, had distinguished himself by his prudence and courage in that station, during the troubles of the league; and the son gained not less honor during the disturbances of the Fronde. His integrity and fearlessness often resisted the arbitrary measures of the despotic Richelieu; and under the no less ambitious, but less vigorous Mazarin, he acquired the esteem of all parties. In 1614, Molé was named *procureur-général*, and, in 1641, first president of the parliament, through the influence of Richelieu, whom he had opposed in the process against the marshal de Marillac. The disturbances of the Fronde (q. v.) soon after commenced. In this contest of factions, Molé defended, with equal prudence and sagacity, the interests of justice and freedom, as well as those of the court, and, when Paris became the theatre of tumults, conducted with so much firmness and dignity, that his bitterest enemies could not withhold from him their approbation; and even Condé and cardinal de Retz were forced to esteem him, although his unshaken rectitude, and devotion to the welfare of the nation and the safety of the throne, frequently frustrated their designs. At one time, indeed, wearied with the intrigues of the interested and ambitious, and unprotected by the feeble and wavering court, he voluntarily resigned the seals, and rejected the offer of a cardinal's hat for himself, and of the place of secretary of state for his son, by which Anne of Austria wished to indemnify him for the loss of his office. But he was soon obliged to resume the difficult station, and was more than once threatened with personal violence by the furious partisans of the Fronde, whom he overawed by his inflexible dignity. These unhappy disputes between the parliament, the court, and the leaders of the Fronde, did not cease until after Louis XIV had assumed the reins of government: under his brilliant and artful despotism the freedom of the parliament and of the nation perished together. Molé died in 1656. In the Memoirs of De Retz, and the other records of the time of the regency of Anne of Austria and Mazarin, Molé's influence in the troubled state is every where perceptible, and all voices agree that a better man could not have been at the head of affairs in that stormy period.

Molecule, in chemistry, is used to signify the constituent particles of bodies. Chemists have divided them into integrant molecules and constituent molecules. The former are such as have the same properties as the mass, and are therefore compound or simple, as the mass is one or the other. Thus a mass of pure metal consists of integrant molecules, each of which has the metallic properties of the mass. A mass of alloy, in the same manner, is composed of integrant molecules, each of which is compounded of the different substances forming the alloy. If we decompose a compound integrant molecule, we obtain the constituent molecules of which it consists. An integrant molecule of water is composed of constituent molecules of oxygen and hydrogen.

Moles Adriani; the mausoleum of Adrian, in Rome, consisting of a square basement, of 170 feet in length, on which rises a round tower, 115 feet in diameter. In the wars with the Goths, it was used as a fortress, and the popes converted it into a castle, which received the name of *St. Angelo*, from the statue of the archangel Michael on its summit.

Molière, Jean Baptiste Pocquelin de, the celebrated comic writer, born at Paris, Jan. 15, 1622, was designed by his father, *valet de chambre* and upholsterer to the king, for the same occupation. In his fourteenth year, he enjoyed the instructions of the Jesuits, and made great progress. Gassendi, Chapelle, Bernier, were his teachers. When his father had become debilitated, he had to discharge his office about the person of Louis XIII. In 1641, he accompanied the king to Narbonne. The French theatre had at that time begun to flourish, through the talents of the great Corneille, and the young Pocquelin, who had imbibed a strong passion for the stage, now formed a company of young persons of similar tastes, and exchanged his family name for that of *Molière*, either from regard to his parents, as his profession was then deemed disreputable, or in imitation of other actors, and resigned the office of his father. His company soon became distinguished. During the troubles of the Fronde, he is lost to our view; but after the restoration of order, we find him at the head of a strolling troop, which acted the *Étourdi*, at Lyons, in 1662. This is the first comedy written in verse by Molière. The truth of the dialogue, the inexhaustible skill of a valet, who is continually employed in rectifying the blunders of his master, the interest of the situations arising therefrom, have kept this piece on the theatre, notwithstanding the want of connexion between the parts, the coldness of the personages, and the incorrectness of the style. Molière gained equal applause as a poet and a dramatist, and drew all the spectators from another company at Lyons. Till that time, all the French pieces had been full of improbable intrigues. The art of representing character and manners on the comic stage was reserved for Molière. This art, the germ of which is seen in the *Étourdi*, united with the variety of incident, kept the attention of the spectators awake, and concealed the faults of the piece. The *Étourdi* was acted with equal applause in Bezières. Here the prince Conti, who had known Molière at school, had just assembled the estates of Languedoc. He received the poet as a friend, and intrusted him with the charge of amusing the town and the assembly. *Le Dépit Amoureux*, and *Les Précieuses Ridicules* were brought forward on the theatre of Bezières, and were admired. In the *Dépit Amoureux*, the incidents are better arranged than in the *Étourdi.* In the actions of the personages, a genuine comic vein is exhibited, and their language displays much spirit and humor; but the plot is too complicated, and the *denouement* not sufficiently probable. The plot in the *Précieuses Ridicules* is more simple. A delicate satire on the prevailing affectation of the character of *bel esprit* and of a romantic style, on the pedantry of learned females, and affectation in language, thoughts and dress, is the object of this comedy. It produced a general reform when it was brought forward in Paris. The spectators laughed, recognised themselves, and clapped. Louis XIV was so well pleased with the performances of Molière's company, that he made it his own company, and gave its director a pension of 1000 francs. The *Cocu Imaginaire* appeared in 1660. This piece also contains a fund of sportive humor, and keeps the spectators continually amused. Censure was not silent on its appearance, but was not listened to. *Don Garcie de Navarre*, in imitation of the Spanish, was criticised with more justice. It is a cold attempt at a more elevated style. The *École des Maris*, the idea of which is drawn from the Brothers of Terence, contains a simple and entertaining plot, and a natural *denouement*. The theatre still resounded with the applause with which this piece was received, when, *Les Fâcheux* projected, executed, and committed to memory by the actors, within a fortnight, was performed at Vaux, at the residence of Fouquet, intendant of finances, in the presence of the king and court. This comedy is almost destitute of plot, but the intention was to interest the spectators by the multiplicity of characters, the truth of the portraits, and by the elegance of the language. It is said that the king, on going away from the first performance, happening to see the count Soyecourt, a tiresome narrator of his exploits in the chase, said to Molière, "There is an original that you have not copied." In twenty-four hours, the scene of the hunter was inserted; and, as Molière was not acquainted with the terms of the chase, he requested Soyecourt himself to explain them to him. The *École des Femmes* (1662) met with critics, who, overlooking the art which prevails in the management of the inferior personages, and in the natural and quick transition from one surprise to another, animadverted upon some negligences of style. Molière answered them by his spirited *Critique de l'École des Femmes.* The *Impromptu de Versailles* was a reprisal, occasioned by an attack of Boursault, who had written a piece against him, entitled *Le Portrait du Peintre.* The court was very much pleased, in 1664, with *La Princesse d'Elide*, a comic ballet, prepared for an entertainment given by the king. Paris, which saw this ballet without the splendor which had embellished it at Versailles, received it less favorably. Another ballet, *Le Mariage forcé*, is drawn from Rabelais. *Don Juan, ou le Festin de Pierre*, excited much reprehension by the impiety of some of the expressions placed in the mouth of the profligate hero. Molière retrenched the objectionable parts in the second representation. *L'Amour Médecin* is one of the over-hasty works, which are not to be strictly criticised. It was written, studied and represented within five days. In this piece, Molière, for the first time, attacks the physicians, which, it is said, he was induced to do by the fact that an ignorant and avaricious practitioner cheated him by overcharges. His great piece, *Le Misanthrope*, was but moderately well received at first, but, in the sequel, was justly considered as one of the finest productions of modern comedy. It must, nevertheless, be allowed that it has been more admired in the closet than it has pleased on the stage—the reason, Voltaire believes to be, because the plot is delicate and ingenious, rather than lively and interesting; because the dialogue, with all its beauty, does not always seem necessary, and therefore retards the action; and because the *denouement*, though skilfully introduced, leaves the spectator unexcited. He adds that the Misanthrope is a more delicate and a finer satire than those of Horace and Boileau, and at least equally well written, but that there are more interesting comedies, and that the *Tartuffe*, for example, unites the same beauties of style with a much more lively interest. In 1665, appeared the *Médecin malgré Lui*, a farce full of humor. *Le Sicilien, ou l'Amour Peintre*, is a short piece which pleases by its grace and gallantry. But his reputation was carried to its highest summit when the *Tartuffe* appeared. Weak minds and pretended saints cried out against the author; but the piece was played and applauded, after it had been kept back for years by the clamor. In this, hypocrisy is fully unveiled; the characters are equally various and true; the dialogue is elegant and natural; the *denouement* alone is unsatisfactory. An impious and obscene farce, entitled *Scaramouche*, having been represented at court, the king said to the great Condé, as he was leaving the theatre in his company, "I should like to know why the people, who are so much scandalized at Molière, say nothing about *Scaramouche*." "The reason is," replied the prince, "that *Scaramouche* ridicules only God and religion, about which these people care nothing, while Molière's piece ridicules themselves." In 1668, Molière published his *Amphytrion*, a free imitation of Plautus. With the exception of a tedious scene between Jupiter and Alcmene, nothing can be more humorous. *L'Avare* (the Miser), an imitation of the *Euclio* of Plautus, is, in the leading character, a little overdone; but the multitude is only to be struck by strong traits. Rousseau censured this piece, because the paternal authority is undervalued in it. *George Dandin, ou le Mari confondu; Monsieur de Pourceaugnac; Les Fourberies de Scapin*, are rather amusing than instructive. *Le Bourgeois Gentilhomme*, though mixed with some buffooneries, is highly comic, and full of power. Molière bestowed more care on his *Femmes Savantes*, a witty satire on affected taste and pedantic learning, which at that time prevailed in the *Hôtel de Rambouillet*. The incidents are not all well connected; but the subject, dry as it may be in itself, is exhibited in a truly comic form. The developement is admirable, and has been a hundred times imitated. The same is true of the *Malade imaginaire*, in which the quackery and pedantry of the physicians of the times are fully delineated. With this piece the author concluded his career. He was indisposed when it was performed. His wife and Baron urged him not to play: "What," he replied, "will all the poor workmen do? I could not forgive myself for neglecting, a single day, to give them bread." The exertion with which he played produced convulsions, which were followed by a hemorrhage. He died after the lapse of a few hours, Feb. 17, 1673. The academy did honor to itself and Molière in 1778, by erecting a bust of him, with the verse of Saurin:

Rien ne manque à sa gloire; il manquait à la nôtre.

The archbishop of Paris at first refused him burial; but the king himself insisted on it, and he was interred in St. Joseph. Molière is the true father of the French comedy. His works may be considered as a history of the manners, fashions and tastes of his times, and as the most faithful picture of human life. Born with an observing mind, skilful in catching the outward marks of the passions and emotions, he took men as they were, and, like a skilful painter, exhibited the most secret recesses of their hearts, and the tone, the action and the language of their various feelings. "His comedies," says Laharpe, "properly read, may supply experience, because he has depicted not mere passing follies, but human nature, which does not change. Of all who have ever written, Molière is the one who has best observed men without seeming to do so. His knowledge of human character seems to have come by intuition. His pieces are as pleasing when read as when performed. Molière is a writer for those of ripened age and the gray-haired. Their experience corresponds to his observations and their memory to his genius." In his domestic relations, Molière was not fully happy: he who made merry on the stage with the weaknesses of other men, could not guard against his own weakness. A violent passion induced him to marry the daughter of the actress Bejart, and he thereby incurred the ridicule which he had so often cast on husbands of a disproportioned age. He was more happy in the intercourse of his friends; and the marshal Vivonne, the great Condé, and even Louis XIV, admitted him to a footing of intimacy. As an actor, Molière was not to be surpassed in high comic parts, such as Arnolphe, Orgon, Harpagon, &c. In 1773, Bret published an edition of his works at Paris (in 6 vols.), with interesting commentaries, (See Pachereau's *Hist. de la Vie et des Ouvrages de Molière* (Paris, 1825.)

Molina, Juan Ignacio, a Jesuit, was born in Chile, and, after a long residence in that country, was obliged to leave the Spanish territories, on account of the dissolution and expulsion of his order. Molina retired to Italy, and published, in Italian, his valuable Civil and Natural History of Chile (Bologna, 1782 and 1787, 2 vols.); which has been translated into Spanish, French, German, and English (Middletown, Connecticut, 1808).

Molina, Molinists. (See *Jansenius*, and *Grace*.)

Molinos, Michael. (See *Quietism*.)

Molla; a spiritual and judicial officer among the Turks, who has civil and criminal jurisdiction over towns or whole districts, and is therefore a superior judge, under whom are the *cadis*, or inferior judges. Over the *mollas* are the *cadileskers*, or supreme judges of the empire, who sit in the divan.

Molle (*soft*, or *sweet*); a relative term, used by the French, signifying a *flat sound*, that is, a sound which is half a tone lower than the sound with which it is compared,—as B flat, or B *molle*, is a semitone beneath B natural, or B *durum*. This term, as its sense intimates, is applied to the flat sounds on account of their supposed softness or sweetness, in comparison with the effect of the natural and sharp tones.

Mollusca, in the Linnæan system; an order of the class *vermes;* in Cuvier's classification, one of the four great divisions of animals, comprehending the greater part of the mollusca and testacea of Linnæus. The body of the mollusca is fleshy, soft, and without articulated members, though sometimes containing hard parts internally, and sometimes covered completely by hard shells. They have arterial and venous vessels, within which the blood undergoes a true circulation. They respire by branchiæ; the brain is a distinct mass, from which the nerves and *medulla oblongata* proceed; there are ganglia in different parts of the body. The senses vary; some of them have distinct organs of sight and hearing, while others appear to be confined to the senses of touch and taste. (See *Animal*.)

Moloch (Molach, or Molech, lord and king); an idol of the Ammonites; according to some writers, a symbol of the sun. His image was an iron statue, with a human body, the head of an ox, and extended arms. The statue was heated by a fire placed in the lower part, and children were placed, as offerings, in the arms of the horrid king, where they perished, while the priests drowned their cries with the noise of musical instruments.

Molossus. (See *Rhythm*.)

Molto (Italian, *very*, or *much*); a word used in conjunction with some other, by way of augmentation, as *molto allegro*, very quick, *molto adagio*, very slow.

Moluccas, or Spice Islands; an archipelago between Celebes and New Guinea, having the Pacific ocean on the north, the straits of the Moluccas separating them from Celebes on the north-west, and the sea of the Moluccas on the south-west, between lat. 3° N. and 5° 30′ S., and lon. 124° 20′ and 132° 20′ E. The Little Moluccas are Ternate, Motir, Machian, Bachian, and Tidore; the Great Moluccas are Gilolo (q. v.), Ceram, Amboyna (q. v.), Banda (q. v.), &c. Most of the islands have volcanic traces, and many of them have active volcanoes. The heat is excessive, but is often moderated by the frequent rains, and, during a part of the year, by the prevalence of the north wind: the climate is healthy. The productions are sago, bread-fruit, cocoas, and all sorts of tropical fruits: the clove-tree is most plentiful in Amboyna, and the nutmeg-tree in Banda. Ebony, iron-wood, teak, a species of laurel yielding an aromatic oil, with other rare and valuable trees, are found in the forests. The barbaroussa, opossum, birds of paradise, cassowaries, &c., are among the animals. Hidden rocks, sand-banks, and shoals, make the navigation in this sea of islands dangerous. The aborigines are called *Harafores*, or *Alfores*, and are an agricultural people. The Malay is the prevailing language in the Moluccas. There are also many inhabitants of Chinese, Japanese and Arabian extraction. When the Portuguese discovered the Moluccas (1511), the Arabians were already settled here, and Mohammedanism, much mingled, however, with paganism, had become the prevailing religion. The inhabitants were severely oppressed by the Portuguese, who perpetrated the most revolting cruelties in these islands, remote from the seat of the general administration (Goa), and no less harshly treated by the Dutch, who converted the produce of the soil to their own use, for more than 150 years, prevented the free cultivation of the land, and opposed every attempt to establish manufactures, and any kind of improvements which could supply the wants of the people. The Portuguese had almost entirely the monopoly of the spice trade till the beginning of the 17th century, when the Dutch took the islands from them. The new masters kept possession till 1796, since which time the islands have been twice conquered by the English. By the peace of Paris, they were again restored to the Dutch. These occupy only Amboyna and Banda, but the chiefs of the other islands are more or less tributary to them. After the Dutch had been about twenty-six years in possession of the Moluccas, and the monopoly of the spices, they found it advantageous to transplant the spice-trees to the southerly group of islands, Amboyna and Banda. In 1638, an agreement was made with the king of Ternate, who was subject to them, and the petty rulers of the other islands, by which it was stipulated that all the spice-trees on the islands belonging to them should be rooted up, and that no more should be planted; in consideration of which an annual sum was paid to the king and the nobility of Ternate, and the other princes. To insure the fulfilment of this agreement, the Dutch erected three strong fortresses in Ternate, and about nine others in the other islands. The spice-trees, which again sprung up in these islands, were destroyed every year, as far as the woods and wild beasts permitted them to be reached; and, in order to see that this was properly executed, and to prevent the smuggling of spices, the governor of Amboyna went through his government every year, with a squadron of 20—50 ships. But, notwithstanding these precautions, the spice-trees, the natural growth of the islands, continually sprung up where the power of the Dutch could not penetrate, and the English carried on considerable smuggling business with the oppressed natives. In other respects, the Moluccas are sparingly endowed by nature. They are wanting in water, and are obliged to procure rice and other necessaries of life from Celebes. The want of water is, in some measure, supplied by cocoa-trees, which grow in abundance, and the fruit of which contains a nourishing drink.

Molwitz; a village in the circle of Breslau, near Brieg, celebrated for the battle between the Prussians and Austrians, April 10, 1741, which was terminated in favor of the former by the exertions of Schwerin. Frederic II (the Great) was present. He acknowledged that he did not then understand the art of war, and had committed important mistakes, but observed, at the same time, that the battle had been a good school for him and his soldiers.

Molybdenum; a metal which has not yet been reduced in masses of any considerable magnitude, but has been obtained only in small, separate globules, of a blackish, brilliant color. It is extremely infusible. By heat, it is converted into a white oxide, which rises in brilliant, needle-formed flowers. Nitric acid readily oxidizes and acidifies the metal; nitre detonates with it, and the remaining alkali combines with its oxide. Molybdenum unites with several of the metals, and forms with them brittle compounds. The specific gravity of the pure metal is 8.611: it has three degrees of oxidation, forming two oxides and one acid. The *molybdic acid* is composed of 48 parts of molybdenum and 24 of oxygen; it has a sharp, metallic taste, reddens litmus paper, and forms salts with alkaline bases; specific gravity, 3.4. It is very sparingly soluble in water; but the molybdates of potash, soda and ammonia, dissolve in that fluid, and the molybdic acid is precipitated from the solutions by any of the strong acids. The *protoxide* of molybdenum is black, and consists of one equivalent of oxygen and one equivalent of molybdenum. The *deutoxide* is brown, and contains twice as much oxygen as the protoxide. Berzelius has formed three chlorides of this metal, the composition of which is analogous to the compounds of this metal with oxygen. The native *sulphuret* of molybdenum is composed of 48 parts, or one equivalent of molybdenum, and 32 parts, or two equivalents of sulphur. It occurs in most primitive countries, disseminated in granite, or gneiss rocks, in thin plates of a foliated structure, soft, flexible, slightly soiling the fingers, and greasy to the feeling; color pure lead-gray; lustre metallic; specific gravity 4.591. It does not melt before the blow-pipe, but emits sulphureous fumes. It is no where found in large quantities, although known to exist in numerous places. Its principal European localities are Altenberg, in Saxony, and Schlaggenwald and Zinnwald, in Bohemia. In the U. States the largest and best pieces have been found in the gneiss quarries of Haddam, Connecticut, where plates half an inch thick, and four inches over, have been met with. At this place, it often exhibits the low six-sided prism. It also occurs at Brunswick, in Maine, in the same rock, and at Chesterfield, Massachusetts, in granite.

Molyn, Peter. (See *Tempesta.*)

Molyneux, William; a mathematician and astronomer, born at Dublin, in 1656, whence he removed to the Inner Temple, London, in 1675. Being possessed of a competent fortune, he never engaged in the law as a profession, but, returning to Ireland in 1678, occupied himself with researches into various departments of natural philosophy, particularly astronomy. Having been appointed joint-surveyor of public works and chief engineer, he had a commission to examine the principal fortresses in Flanders. After his return, in 1686, he published his *Sciothericum Telescopicum*, containing an account of a telescope-dial of his invention. In 1689, he removed to London, on account of the political commotions of Ireland, and, in 1692, published a treatise on dioptrics, under the title of *Dioptrica Nova* (4to.). Going back to his native country, he was chosen member of parliament for Dublin, in 1692; and, in 1695, he was elected representative of the university. He died October 11, 1698. Mr. Molyneux was a fellow of the Royal Society, and a contributor to the Philosophical Transactions.—His son, *Samuel Molyneux*, who was secretary to George II, when prince of Wales, was also a cultivator of the mathematical sciences, and made some improvement in the construction of telescopes, of which doctor Robert Smith published an account, in his treatise on optics.

Molza, Francesco Maria, an Italian poet, was born at Modena, in 1489, of a distinguished family, lived principally in Rome, on terms of friendly intercourse with the most eminent scholars, and died 1544. His talents would have opened to him a brilliant career, had not his excesses obstructed his progress. Among his poems, the stanzas on the portrait of Giulia Gonzaga, and the *Ninfa Tiberina*, a poetical picture in *ottave rime*, are the most highly esteemed. His *Capitolo in Lode dei Fichi* is full of indelicacies; Annibal Caro wrote a commentary upon it. Molza is favorably known as a Latin poet. A complete collection of his works first appeared in 1747, with an account of his life, by the abbate Serassi.

Moment; an indefinite small portion of time, having the same relation to duration as a point has to a line.

Momentum, in mechanics, is the same with *impetus*, or quantity of motion, and is generally estimated by the product of the velocity and mass of the body. This is a subject, however, which has led to various controversies between philosophers, some estimating it by the mass into the velocity, as stated above, while others maintain that it varies as the mass into the square of the velocity; but this difference seems to have arisen rather from a misconception of the term than from any other cause, those who maintain the former doctrine understanding *momentum* to signify the momentary impact, and the latter as the sum of all the impulses, till the motion of the body is destroyed.

Momiers; a Protestant sect, of recent origin, in Geneva and some other parts of Switzerland, founded by Empeytaz, a student of theology and follower of the baroness von Krüdener (q. v.), about 1813. He held conventicles for the edification of those who were not satisfied with the ordinary religious exercises; and, when he had completed his course of theology, the consistory of Geneva required of him a promise to discontinue these private meetings. This Empeytaz refused, and published a work on the divinity of Christ, in which he charged the clergy of Geneva with denying the divinity of Christ. The clergy of Geneva then required of all young candidates a promise to abstain from treating of the nature of Christ, original sin, grace and predestination, in the pulpit. This excited some discontents, and Malan, a clergyman of Geneva, at the head of the dissatisfied, and in connexion with Mr. Drummond, an Englishman, with Empeytaz and others, formed a new church, or Orthodox church, and attacked their adversaries in pamphlets, with charges of Arianism, Socinianism, deism, and atheism. The Genevese clergy kept silence; and, since 1823, Malan has erected a house of worship, and administers the Lord's supper. His doctrines are of a mystical character. The name *Momiers* was at first given to the sect by way of contempt (from *momerie*, mummery), but has since been used as their appropriate designation. (See *Hist. véritable des Momiers* (Paris, 1824); *Geschichte der sogen. Momiers* (Basil, 1825.)

Momus; the god of satire and pleasantry among the ancients. He was son of Nox, according to Hesiod. He blamed Vulcan, because, in the human form, which he had made of clay, he had not placed a window in the breast, by which whatever was done or thought there might be easily brought to light. He censured the house which Minerva had made, because the goddess had not made it movable, by which means a bad neighborhood might be avoided. In the bull which Neptune had produced, he observed that his blows might have been surer if his eyes had been placed nearer the horns. Venus herself was exposed to his satire; and when the sneering god could find no fault in the body of the goddess, he observed that the noise of her feet was too loud for the goddess of beauty. These illiberal reflections upon the gods were the cause that Momus was driven from heaven. He is generally represented raising a mask from his face, and holding a small figure in his hand.

Mona; the ancient name of the island of Anglesea. (q. v.) The marquis of Anglesea (q. v.) was created duke of Mona in 1831.

Monaco; an Italian principality, lying between the Sardinian province Nizza (Nice) and the Mediterranean, with a population of 7000 inhabitants, and a superficial area of 535 square miles. In the 10th century, the emperor Otho I conferred it on a prince of the house of Grimaldi, which became extinct, in the male line, in 1731. In 1641, the reigning prince, having put his territories under the protection of France, was created duke of Valentinois. The daughter of the last prince having married Francis de Matignon (1716), the princely and ducal titles passed to the French family of Matignon. In 1793, Monaco was incorporated with France, but, in 1814, was restored to its princes, and placed under the protection of Sardinia. The capital, Monaco (Monœci Arx), with 1200 inhabitants, is a fortified place, situated on the sea, in the midst of olive, orange and lemon-groves. Lat. 43° 43′ N.; lon. 7° 22′ E.

Monadnock Mountain, usually called the *Grand Monadnock*, is situated in the towns of Jaffrey and Dublin, Cheshire county, New Hampshire. It is about 22 miles east of Connecticut river. The mountain is about five miles long, from north to south, and three miles broad, and its height is 3450 feet above the level of the sea. It affords a very extensive prospect.

Monads. (See *Leibnitz*, vol. vi, page 492.)

Monaldeschi. (See *Christina, queen of Sweden.*)

Monarchy. (See *Political Institutions.*)

Monastery. Monastic seclusion is found, even in the times previous to the Christian era. The inclination to a solitary life arose with the corruptions of society. The better disposed persons, who felt themselves unequal to resist these corruptions, sought, in solitude, a protection against temptation. That indisposition to action, and that fondness for undisturbed contemplation, which is still remarked among the Hindoos, existed among the earliest inhabitants of Southern Asia, and gave rise to the most ancient Oriental philosophy, whose tendency to a contemplative life, aspiring to shake off the fetters of the body and sense, gave to retirement from the world the charm of a peculiar sanctity. To this was added the opinion, that transgressions may be best atoned for by abstinence from all the pleasures of life, and from all society of men, and thus, according to an ancient notion, popular throughout the East, the Deity might be appeased. Anachorites, hermits, recluses and monks are therefore found, in the ante-Christian times of Asiatic antiquity (see *Gymnosophists*); and, at the present time, the countries which profess the religions of Brama, Fo, Lama and Mohammed, are full of fakirs and santons, tanirs, or songesses, talapoins, bonzes and dervises, whose fanatical and absurd penances are rather arts of deception than fruits of piety. The ancient Hebrew people, also, had such devotees, as its Nazarites, to whom Moses gave peculiar privileges; and the life of the Essenes and Therapeutes, who flourished in Palestine and Egypt about the times of Jesus, was entirely formed on the idea of separation from the world, and of monastic discipline and piety, which we afterwards see prevalent in the better period of Christian monasticism. Among the Christians, whose religion strictly distinguishes the corporeal and the spiritual, and, moreover, since the third century, has been impregnated with Gnostic and New Platonic ideas of incorporeality and elevation above the world of sense (see *Saints*), solitary life began to be esteemed, as early as the fourth century. (See *Chrysostom.*) Monasteries were first founded in the deserts of Upper Egypt, where Antony, commonly called the *Great*, collected a number of hermits, about the year 305, who, for the sake of enjoying the benefits of retirement from the world in each other's society, built their huts near each other, and performed their devotional exercises in common, as the monks of Palestine did at a later period, and as those of Abyssinia do at the present day. More close than this connexion, which was called *Laura* (see *Anachoret*), was that founded by his disciple Pachomius, in the middle of the fourth century. He built a number of houses, at a small distance from each other, upon the island of Tabenna, in the Nile, each of which was occupied by three or four monks (*monachi*) in cells, who were all under the superintendence of a prior. These priories formed together the *cœnobium*, or monastery, which was under the care of a superior, the abbot (from *abbas*, father), higumen or mandrite, and were obliged to submit to uniform rules of life. At the death of Pachomius, in 348, the monastic colony, at Tabenna, amounted to 50,000 persons. The districts in Palestine, Syria and Armenia were filled with Cœnobites, and institutions of the same kind arose in and about the towns, in which a strict confinement within the walls of the establishment, was to preserve the inmates from the temptations of the world around them, and to supply the place of the solitude of deserts. Hence the name of *cloisters*, from *claustra*, enclosures. The monastic life, at first freely chosen by men alone, and therefore restrained by such laws only as each one thought fit to impose upon himself, for promoting the ends of solitary life, was subjected, by St. Basil, to stricter rules, about the middle of the fourth century, when female monasteries, or convents of nuns (a word said, in Coptic, to signify *pure*), were instituted, and persons of all ages and stations entered the establishments. By means of these rules, the same discipline was kept up in all the monasteries through the East. Still there was not, in the fourth or fifth centuries, any thing like regular monastic vows, or public profession; except that the entrance into a monastery was regarded as a tacit devotion of one's self to a life of purity and abstinence from worldly pleasures, and a promise of obedience to the rules and restrictions of the institution. These vows were introduced in the sixth century, by St. Benedict. It may be chiefly ascribed to his strict and judicious regulations, first established in a monastery founded by him at Monte Casino, near Naples, in 529, and afterwards introduced into all the monasteries of the West, that these houses now became the dwellings of piety, industry and temperance, and the refuge of learning, driven to them for shelter from the troubles of the times. Missionaries were sent out from them; deserts and solitudes were made habitable by industrious monks; and, in promoting the progress of agriculture and civilizing the German and Sclavonian nations, they certainly rendered great services to the world, from the sixth century to the ninth. But it must be admitted that these institutions, so useful in the dark ages of barbarism, changed their character, to a great degree, as their wealth and influence increased. Idleness and luxury crept within their walls, together with all the vices of the world, and their decay became inevitable, when, by a custom first introduced by the Frankish kings, and afterwards imitated by other princes, of bestowing monasteries upon the nobility for the sake of their income, they came under the care of lay abbots or superiors, who, thinking only of the enjoyment of the revenue which they yielded, did nothing to maintain discipline among the monks and nuns, daily becoming more irregular, and when they were robbed and oppressed, or left wholly to their own government (in consequence of the privileges and exemptions they had obtained) by the bishops, who were originally their overseers, but had now lost their fondness for a monastic life. A few only, by means of the convent schools (founded by Charlemagne, for the education of the clergy), as, for instance, those at Tours, Lyons, Cologne, Treves, Fulda, Osnabrück, Paderborn, Würzburg, &c., maintained their character for usefulness and respectability till the ninth and tenth centuries. The monastery at Clugny, in Burgundy, first led the way to the reform, so generally acknowledged to be necessary. This was founded in the year 910, and was governed by the rules of St. Benedict, with additional regulations of a still more rigid character. A considerable number of monasteries in France, Spain, Italy and Germany, were reformed on this model, while others gave to the Benedictine rules a new form, and founded, in the eleventh and twelfth centuries, several orders with affiliated monasteries, which, as branches of the old Benedictine order, composed so many monastic communities, closely united by a proud and jealous spirit of confederation. With the reputation of renewed sanctity, the monasteries acquired new influence and new possessions. Many of them ("exempt monasteries") released themselves from all superintending authority, except that of the pope himself, and acquired great wealth in the time of the crusades, when those who adventured upon these expeditions left them their estates in trust till their return, or even the reversion of them in case of their death abroad. The privilege of inviolability, which had been granted, by common consent, to all monastic establishments, during the feuds of the middle ages, had induced many, who could find no better security for their property, in those days of rapine and violence, to place it under their protection. In this manner it happened that, as the zeal for reformation abated, and their influence was confirmed, new abuses sprung up in these establishments; and, as the authority of their spiritual and temporal lords was lessened by numerous exemptions, and was of little avail, when opposed by the combination of powerful religious orders, who had acquired great strength in all the countries of Europe, from the protection of the popes, the character of each monastery came, at last, to depend chiefly upon that of the abbot who was at its head. The number of monasteries was much diminished at the time of the reformation, when the rich estates of the establishments which were deserted by the monks and nuns, in Protestant states, were in part appropriated by the sovereign to his own use, and partly devoted to the founding and supporting of institutions for the purposes of education, or transferred to universities and academies, were bestowed as rewards upon deserving ecclesiastics (as was the case with the abbeys in Lower Saxony and Wurtemburg), or were employed for the support of noble ladies until they married, as in Hesse, Holstein, Mecklenburg, &c. (For the suppression of the monasteries in England, under Henry VIII, see *Henry VIII*, vol. vi., p. 255.) In Catholic countries, they retained their original constitution till the 18th century; but, from the influence of the spirit of the age, they sunk in the public estimation, and were obliged, as the papal power diminished, to submit to many restrictions, imposed upon them by Catholic princes, or to purchase immunity at a high price. The benefits which they had formerly conferred upon the world, as the preservers of literary treasures; as places of refuge for the poor and the persecuted; as institutions for the education of youth; as places of retirement for persons of distinction who had outlived their usefulness, or were weary of the world; as schools for the mild correction and improvement of erring members of the human family,—appeared unimportant in the eyes of politicians and philosophers, when compared with their injurious effect upon the increase of population by their encouragement of celibacy; upon the public welfare, by their incessant grasping at the estates of wealthy persons, who had committed their children to their care; upon industry, by the idleness of their inhabitants; and upon public morals, by the sins which were notoriously committed within their walls. In this light were monasteries regarded by the greater portion of enlightened men, when, in 1781, the houses of some orders were wholly abolished by Joseph II, and those which he suffered to remain were limited to a certain number of inmates, and cut off from all connexion with any foreign authority. In France, the abolition of all orders and monasteries was decreed, in 1790, which example was followed by all the states incorporated with France, as well as by all the other Catholic states upon the continent of Europe, in the nineteenth century under the protection of Napoleon, with the exception of Austria, Spain, Portugal, Naples, Poland and Russia. This measure seems to have been the result of financial calculations rather than the dictate of true humanity. In Prussia, provision was made for the monks who were dispossessed; and, after Joseph's example, the wealth obtained by secularizing the monasteries was appropriated to the support of churches and schools; but where the French system prevailed, these estates were thrown into the public treasury. Late events have much improved their condition in Italy; and Pius VII, in his concordate with France, Bavaria and Naples, made provision for the maintenance of those already existing, and the foundation of new ones in those countries. In Austria, many monasteries have been suffered to become extinct. Not a few of these institutions render themselves useful, by the instruction of youth, especially of the female sex, and by taking care of the sick. (For the monastic vows, see the next article; for further information, see *Orders, religious*, *Abbot*, *Anachoret*, &c.)

Monastic Vows are three in number; poverty, chastity and obedience. The vow of poverty prevents the monks from holding any property individually; monasteries, however, may hold corporate property; for the Roman Catholic church makes a distinction between the high, higher and highest degrees of poverty. In the first case, a monastery may possess portions of real estate, yet not more than enough for its support; as the Carmelites and Augustines. In the second, a monastery cannot hold any real estate, but only personal property; as books, dresses, supplies of food and drink, rents, &c.; as the Dominicans. The third permits neither the holding of real nor of personal property; as is the case with the Franciscans, and especially the Capuchins. The vow of chastity requires an entire abstinence from familiar intercourse with the other sex; and that of obedience, entire compliance with the rules of the order, and the commands of the superior.

Monboddo, lord. (See *Burnett, James.*)

Moncontour; a village of France, in Vienne, about twenty-five miles N. W. of Poictiers. Henry III, when duke of Anjou, defeated Coligny here in 1569. (See *Coligny.*)

Monday (*moon* and *day;* Saxon *Monandæg;* German *Montag*, Latin *lunæ dies;* all of the same signification); the second day of our week, formerly sacred to the moon. (See *Week.*)

Monday, Plough. (See *Plough Monday*).

Mondovi, a city in the Sardinian territories, capital of the province of the same name, in Coni (*Cuneo*), thirty miles south of Turin; a bishop's see; population, 21,550. It is situated on the top of a steep hill, and surrounded by fortifications. Among the public buildings, the principal is the cathedral. The battle of Mondovi, gained by general Bonaparte in 1796, rendered the French masters of Piedmont.

Monembasia, the Greek name for the place called in the English books *Malvasia.* The population given under *Malvasia* is that of the place before the late desolating war. The present population is but 200.

Money; the common medium of exchange among civilized nations. Money must consist of a material, 1. which has a value of its own; 2. which every man is willing to accept in exchange for his property; 3. whose value is readily ascertained. If this material is moulded into a particular form, and stamped with a mark denoting its value, so that it is appropriated expressly to the exchanging of articles having value, it is called *money*, in distinction from other articles which have value, but which are not used as a medium of exchange. The materials of which money is made, as well as the coin, are merchandise, like other articles that are bought and sold. Different nations, in the early periods of their cultivation, have chosen for money different materials, all having more or less of the above-mentioned peculiarities. All nations advanced in trade and the arts, give preference to metals, especially the precious metals; for, 1. they derive value from the smallness of their quantities, compared with the demand for them in the ornamental and useful arts. 2. They are very little subject to corrosion and destruction by use. 3. They are susceptible of minute division, and may be used in small quantities or masses. 4. They are easily transported, as their transportation to any distance will cost but a small part of their value. 5. The quantity is increased by labor. The advantage of using the precious metals for a universal currency is still greater, when it is not left for every private man to divide the pieces of metal, to weigh them, and fix their fineness, but persons are appointed under the authority of the law, to decide what pieces shall be circulated as money, to stamp them so as to fix their weight and fineness, and to furnish them with the superscription of the authority by which they are authorized. Such pieces are called *coins* (q. v.; for the process of coining, see *Mint*). Instead of money, the merchant often receives a promissory note or bill: this substitute is sometimes improperly termed *money.* It is manifest that promissory notes or bills of exchange are of the same value with the real money only while they can be readily exchanged for coin, and that they must lose their value in proportion as the credit of those who issue them, sinks. This is true of all paper money (see *Circulating Medium*), and all metallic money whose current value is higher than its real value, all notes or bonds taken instead of money. That any sort of money may be received for its real value, or that which it represents, and trade be carried on by means of it, it is necessary that its value should be acknowledged wherever it is used. A distinction, however, is made between money which is received in only one trading-place or small circle, issued in time of peculiar necessity, denominated *tokens*, &c., also coins current in only one country, and money which is every where acknowledged and received, such as bars of gold and silver, of a certain weight and fineness, also Dutch ducats, Spanish dollars. The exchangeable value of gold and silver, like that of all other commodities, depends, in the first place, on their plenty or scarceness, or, in other words, the quantity supplied in comparison with the quantity wanted, or for which there is a demand; and, in the second place, upon the labor necessary in extracting the ore from the mines, and refining it. As a general rule, it may be assumed that if, taking the aggregate of silver mines, and that of iron mines, the expense, that is, the labor, including the use of machinery, necessary to extract a pound of silver from the ore, and refine it, is twenty times the expense, or labor, of smelting, forging and refining a pound of iron, silver will be worth twenty times as much as iron. The comparative value of gold and silver will depend upon the same causes as that of either compared with iron, copper or tin. In the U. States, the value of gold, compared to that of silver, is as $15\frac{11}{27}$ to 1; in England, as $15\frac{1}{5}$ to 1; in France, as $15\frac{190}{288}$ to 1; and in Geneva, as $15\frac{31}{54}$ to 1. The comparative value is necessarily very nearly the same all over the world, since each metal costs but a trifle for transportation, and both are articles of value everywhere. The quantities of gold, in its various forms of coin and bullion of all descriptions, including bars, plate, &c., has been estimated to be 10,000,000 of pounds, troy weight. A scarcity of money can occur only when, 1. the material of which it is manufactured is deficient, or, 2. when those who are in want of it have nothing to give in exchange to its possessors. In the last case, there is no real deficiency of money, for there are individuals who, by the terms of the supposition, possess the money: there is only a deficient demand for goods on hand, and those only are in want of money who are unable to dispose of these goods. Scarcity of money, therefore, is only a relative expression; i. e. there are certain places or persons without money to obtain certain articles which they desire to possess. All mechanics, artisans and manufacturers want money enough to purchase the raw materials which they consume, and to pay the wages of their laborers. Merchants need money to pay manufacturers and producers for their goods, and to transport them where they are wanted and the last consumer needs it to give in exchange for what he eats, drinks, wears, &c., to the dealer of whom he procures the requisite articles. Now, if any one of these classes has not the money required for any of those purposes, there is a scarcity of money for that class of individuals. In these and similar cases, the scarcity of money does not suppose a real scarcity of gold and silver, or a deficiency of coined metals. The scarcity arises from the want of industry, or means, in any class of citizens, to procure the money in circulation, or from their industry being directed to the production of such articles as there is no present demand for among the actual possessors of money; as when, for instance, in grain-growing countries, there is a deficiency of purchasers of the grain produced, there not being consumers enough of the grain, who can obtain or produce desirable articles in exchange for it. In such a case, the producers of grain can obtain money only by exportation of the article to foreign ports. And if it happens that the foreign lands to which it is exported are already provided with grain from some other quarter, it will remain unsold—not because there is no money, but because there is no motive to induce its possessors to part with it for grain. In places where manufactures of any kind prosper, a certain quantity of money is required to provide the materials. This sum is easily ascertained, according to a certain average, and there is no scarcity of money for these purposes, as long as this sum is on hand. But when the manufacture is increased, by the operation of particular circumstances, and the place produces more goods than common upon this account, a scarcity of money may easily occur among those devoted to this branch of business. If now these persons possess goods or credit, they make use of both to obtain the money required from other parts; which will depend, again, upon their being able to pay the expenses of transporting their goods, or to give to the holders of money a higher interest than they can elsewhere obtain. Money, in these cases, becomes of more value in these places than in those where it is not so much in demand; and it follows, from this, that money will leave the places where it is plenty to seek those where, from the want of it, more will be paid for its use; and, in this manner, a scarcity of money will work its own cure. Money is profitable to any country only by means of its circulation (q. v.); for circulation makes money the continually repeated cause of the production of new portions of property; and, on this account, a very small sum of money, which is in constant circulation, is of far more benefit to a country than the possession of the largest sums which remain locked up, and do not change owners. A great quantity of money, therefore, is of no service to a country, unless there are desirable things in that country, for the purchase of which it is to be paid, and thus transferred from one to another. When, therefore, more money flows into any country than will pay for what the country actually produces, money becomes of less value, and the money price of merchandise greater. In this case, it is better to procure the goods from countries where their money price is less. The money will thus be exported again, and procure a return of cheap goods in its place. But, by this process, the industrious part of the population are injured, and those only receive profit who make these exchanges of money for foreign goods. The laboring classes therefore experience a scarcity of money, because the articles which they produce do not command a ready sale. In this manner, all the gold and silver obtained by Spain and Portugal from South America passed into foreign countries in exchange for foreign necessaries. The only true means, then, to remove and to prevent permanently a scarcity of money, is to improve the state of domestic and internal industry; and their opinion is wholly destitute of foundation, who believe that a mere plenty of money is sufficient to develope a healthy state of domestic industry; for the money does not produce the goods, but follows their production. And money will not stay in a country that does not contain goods upon which it may be expended, but it seeks those countries which produce the objects of desire. The worst of all means of supplying a scarcity of money is the multiplication of those things (as paper of all kinds) by which it is represented, or which are used as substitutes for it; for these circulating media are only worth so much as can be obtained in real value for them, and the scarcity of the precious metals in the country, preventing those who desire it from exchanging their money for them, the value of this paper medium falls at once, and often to such a pitch that a million of these dollars shall not be enough for the purchase of one silver dollar. Nor does it help the case to base the value of this money upon any thing else than the precious metals; for, if their value is expressed in any article not so easily disposed of as gold or silver, as grain, for instance, these bills for grain are worth no more than the grain itself; and, if grain falls in value, these grain-bills must of necessity sink with them; and, if the grain cannot be used as a means of payment, then they lose their value altogether. A circulating medium fixed upon so insecure a basis can never take the place of real gold and silver. The truth of all these remarks is strikingly illustrated by the history of the continental paper issued by the American congress, during the revolution, and by that of the celebrated French assignats, which, resting upon the credit of a people without money, and without means of getting it, were soon found to be of little worth, or of none at all. Nor is this contradicted by the fact that the paper of the bank of England remained good during the stoppage of specie payments; for the wealth and the productiveness of that nation are so great as to render all transactions safe in any paper authorized by its government; and that wealth and industry combined place it in a situation so far removed from most countries, that it only forms, in this respect, a fair exception to a general law.

Money, Standard of. (See *Standard.*)

Monge, Gaspar, a celebrated mathematician and natural philosopher, born at Beaune, in 1746, studied in the colleges of the fathers of the oratory at Beaune and Lyons with such success that he became a teacher at the age of sixteen. He was afterwards employed at the military school of Mézières, where he assisted Bossut, the professor of mathematics, and afterwards Nollet, professor of physics, whom he succeeded. In 1780, he removed to Paris, on being admitted into the academy of sciences, and became the coadjutor of Bossut, in a course of lectures on hydrodynamics at the Louvre. He quitted Mézières entirely in 1783, on being appointed examiner of the marine, when he composed a Treatise on Statics, afterwards used for the polytechnic school. In 1789, like other friends of freedom, Monge indulged in expectations of the regeneration of France. Through the influence of Condorcet, he was made minister of the marine, in 1792, and he held, at the same time, the portfolio of minister of war, during the absence of general Servan with the army. He thus became a member of the executive council of government, in which capacity he signed the order for the execution of Louis XVI. Shortly after, he resigned his functions, in consequence of which he was exposed to the persecution of the ruling party of the Jacobins, against which he successfully defended himself. He was then employed, together with other men of science, in improving the manufacture of gunpowder, and otherwise augmenting the military resources of the country. The Normal school was founded, with which Monge became connected; and he then published his *Géométrie descriptive*, one of his principal works. Together with Berthollet and Guyton Morveau, he principally contributed to the establishment of the polytechnic school; after which, in 1796, he was commissioned to go to Italy, and collect the treasures of art and science from the countries conquered by the French; and the labors of Monge and his colleagues gave rise to the splendid assemblage of works of taste and genius, which for a time ornamented the halls of the Louvre. In 1798, he went with Bonaparte to Egypt, where he was again employed in the service of science. On his return to France, he resumed his functions as professor at the polytechnic school, in the success of which he greatly interested himself. The attachment which he manifested to Bonaparte led to his being nominated a member of the senate, on the formation of that body. The emperor bestowed on him the title of *count of Pelusium*, the senatorial lordship of Liege, made him grand cordon of the legion of honor, gave him an estate in Westphalia, and, a little before he set out on his Russian expedition, a present of 200,000 francs. The fall of his benefactor involved him in misfortunes. He was expelled from the institute in 1816, one of his sons-in-law was exiled, and he was deprived of all his employments. His faculties became disordered, and he died July 28, 1818. Besides the works above noticed, Monge published *Description de l'Art de fabriquer les Canons* (4to.), and *Application de l'Analyse à la Géométrie des Surfaces* (4to.), as well as a multitude of memoirs on mathematical and physical science. His pupil Dupin has published an *Essai historique sur les Services et les Travaux scientifiques de Monge.*

Monguls; a great nation in the north-east of Asia, which, after having been, at two different times in the middle ages, distinguished for its conquests, has been sunk, for three centuries past in inactivity, and is now hardly known in Europe, but by name. The Monguls have been frequently confounded with the Tartars dwelling in South-western Asia, with whom, however, they have nothing in common but a nomadic mode of life, and an irregular, savage method of waging war, pillage being their sole object. They differ from them essentially, by a dingy complexion, small eyes, and their corporeal structure in general, as well as by their language and manners. Their early history is obscure. In the thirteenth century, they spread their conquests and devastations from the depths of Northern Asia over Russia, and other parts of Europe. They came from the regions which they now, in part, inhabit, Mongolia, north of the great wall of China, between the present Eastern Tartary and Bucharia. For their power and consequence they were indebted to the genius of a single extraordinary individual, Genghis Khan (q. v.), who having been, originally, merely the chief of a single Mongul horde, compelled the other hordes to submit to his power, and then, in 1206, conceived the bold plan of conquering the whole earth. In a short time he subjugated two great Tartar empires in the east and west of Asia, destroyed in six campaigns the mighty monarchy of the sultans of Chowaresmia, who reigned over Turkestan and all Persia as far as India, and during the same period sent part of his subjects, under the command of his eldest son, in 1223, to devastate Russia. After the death of Genghis Khan, in 1227, his sons pursued his conquests, subjugated all China, subverted the caliphate of Bagdad, and made the Seljook sultans of Iconium tributary. In 1237, a Mongul army again invaded Russia, conquered Moscow, and desolated a great portion of the country. Having subjugated Russia, the Monguls entered Poland in 1240, burned Cracow, and advanced in Silesia to Liegnitz, where they conquered Henry, duke of Breslau, in a bloody battle, April 9, 1241. But want of provisions soon compelled them to leave the countries which they had laid waste with fire and sword. In Germany, and even France, where the former invasions of the Huns were held in remembrance, the fear of them was so great, that fasts and prayers were appointed to avert their approach. They were prevented from taking advantage of the general consternation to extend their conquests, by the disputes which arose respecting the succession to the throne, after the death of Khan Octai, the immediate successor of Genghis Khan. The empire of the Monguls still held together, and at the end of the thirteenth century was at the summit of its power. At that time, it extended from the Chinese sea and from India, far into the interior of Siberia, and to the frontiers of Poland. The principal seat of the great khan was China; the other countries were governed by subordinate khans, all of whom were descended from Genghis, and were more or less dependent on the great khan. The most powerful of the Monguls were the Kaptshaks, who lived on the Wolga, and were the scourges of Russia, and the Dshagatais, who lived between the river Oxus and Tartary. But this division of the empire among several petty princes was the cause of the gradual decay of the power and consequence of the Monguls in the fourteenth century. In the fifteenth century, various hordes of this nation were subjugated or destroyed by the Russians, whose conquerors they had previously been. In China, the empire of the Monguls had been overturned, in 1368, by a revolution. But, about 1360, there appeared a second formidable warrior of the tribe of the Dshagatai, Timurlenk (Tamerlane, q. v.), called also Timur Beg. He was of obscure descent, but, as the dynasty of the Monguls of Dshagatai had fallen into decline, raised himself by his talents and courage to the sovereignty of the whole nation. In 1369, he chose the city of Samarcand for the seat of his new government. The other Mongul tribes, with Persia, Central Asia and Hindostan, were successively subjugated by him. In 1400, he attacked, in Natolia, the sultan Bajazet I, who had been hitherto victorious against the Christians in Europe, and before whom Constantinople trembled. The battle of Ancyra (Anguri), 1402, was decided against Bajazet; he suffered a total defeat, and was even made prisoner by Timur. The story of the severity which the conqueror is said to have used towards his prisoner, is not well substantiated. For a time, the Christian powers were thus freed from a formidable enemy. After Timur had conquered and desolated all Natolia, he died on an expedition to China, March 19, 1405, 69 years of age. After his death, the monarchy of the Monguls was divided into several states. Baber (Babur), a descendant of Timur, founded, in India, in 1519, a powerful monarchy, which existed till the close of the eighteenth century, as the empire of the Great Mogul. (See *Hindostan.*) The Mongul tribes now in existence live partly under Russian, partly under Chinese dominion. Those which remain of the tribe of the Kaptshaks live intermingled with the Calmucks, in the government of Irkutsk; their number, with that of the Calmucks, is estimated at 300,000. The rest, which are under Chinese sovereignty, but are governed by four different khans, live in Mongolia, which is bounded by Tungusia, China, Little Tartary and Siberia. They all profess the religion of Fo (q. v.), lead a nomadic life, but, by means of caravans, carry on some trade with Russia, in woollen and cotton goods of their own manufacture. (See the *Hist. des Monguls depuis Tschinguiz-Khan jusqu'à Timour-Lane* (Paris, 1824), and Isaac James Schmidt's excellent *Forschungen im Gebieteder ältern, religiösen, politischen und literar. Bildunsgesch. der Mongolen und Tibeter* (St. Petersburg, 1824). Schmidt's German translation of Ssanang Ssætsæn's History of the Eastern Monguls, accompanied with a commentary, and with the Mongul original, has been printed at Petersburg, at the expense of the emperor. Baber's interesting Memoirs, written by himself, have been translated from the Dshagatai Turkish into English (London, 1826), by Leyden and Erskine with an introduction, very important for the history of the Monguls.

Moniteur. Nov. 24, 1789, a journal was commenced at Paris, the *Gazette Nationale, ou le Moniteur Universel*, which was intended to give an account of foreign events, but more especially of the doings of the national assembly, and on the 7th Nivose of the year VIII, it was declared an official paper. Since that time it has been the most important, and the only official, journal of the French government. Since Jan. 1, 1811, it has dropped the title *Gazette Nationale*, and retained only that of *Moniteur Universel.* The occurrences that took place between 1787 and the opening of the national assembly, have been subsequently added in an introduction, published in the year IV (Paris, 1 vol., fol.). In the year IX (Paris, 2 vols., folio), appeared the *Révolution Française, ou Analyse complète et impartiale du Moniteur, par Ordre Chronologique*, and in the following year, the *Table Alphabétique du Moniteur* (likewise in 2 vols., fol.), but neither of which, unfortunately, comes down farther than the close of the year VII. The *Moniteur* appears every day in a large folio sheet, often accompanied with supplements. It contains, in the two divisions appropriated to foreign and domestic news, not only the official ordinances and documents of the government, appointments, removals from office, promotions, &c., with notices on the arts, literature and the drama, but also such political information as the government intends shall be regarded in France as official. The *Moniteur* had a great circulation in France and Europe generally, and also in America, during the revolution. Entire sets are rare. The years VII and VIII (1798—1800) in particular, of which a smaller impression was made, are often wanting. Among the daily papers of modern times, the *Moniteur* maintains a melancholy celebrity. It has exhibited, in the same nation, the picture of the most unbridled popular rage, and of oppressive monarchical despotism. It is one of the most important collections of public documents for the historian of the great changes in Europe since the beginning of the French revolution.

Monitor; a genus of large lizards, which have teeth in both jaws, and none on the palate; most of them have the tail compressed laterally: they derive their name from a popular belief that they give warning of the approach of crocodiles, by making a kind of whistling noise. They are found in most parts of the world, and the fossil remains of species much larger than any now existing, have been discovered in various places in Europe.

Monitorial Instruction. (See *Mutual Instruction.*)

Monk. (See *Monastery*, and *Orders, religious.*)

Monk, George, duke of Albemarle, an English military officer, distinguished in history for the prominent part he acted in the restoration of Charles II, was the son of sir Thomas Monk. He was born Dec. 6, 1608. Entering into the army at an early age, he served under sir Richard Grenville, in an expedition to Spain, and in 1630, went to the Netherlands, where he was promoted to a captaincy. He was engaged in the unfortunate expedition of Charles I against the Scots in 1639, at which period he was made lieutenant-colonel. On the rebellion taking place in Ireland, he was sent thither, and his services were rewarded with the post of governor of Dublin. Hostilities occurring between the king and the parliament, colonel Monk brought over his regiment to his majesty's assistance. He was appointed major-general in the Irish brigade; and, being employed at the siege of Nantwick, was made a prisoner, and committed to custody in the Tower of London. He devoted his leisure to writing, and composed Observations on Military and Political Affairs, published not long after his death. Having been detained about three years in confinement, he accepted a commission from the parliament, on condition of being employed only against the Irish insurgents. He distinguished himself repeatedly in this service; but, having made a treaty with the Catholic chieftain O'Neal, which gave offence to the English parliamentary government, he resigned his command, and retired to his estate. After the entire overthrow of the royal party, Monk was employed with Cromwell in Scotland, and was present at the battle of Dunbar. His coadjutor returning to England, he was intrusted with the chief command. War taking place with the Dutch republic, he engaged in the naval service, and, together with admirals Blake and Dean, commanded in two engagements, in which they triumphed over the enemy, commanded by the famous Van Tromp. On the reëstablishment of peace, Monk returned to Scotland, where, at the head of the English army, he maintained the authority of Cromwell in that country. On the decease of the protector, the resignation of power by his son, and the contest of parties which subsequently took place, he availed himself of the commanding situation which he occupied, to crush the republicans, and promote the recall and restoration of the Stuart family to the throne, in the person of Charles II. The dukedom of Albemarle, the order of the garter, and the office of privy-counsellor, rewarded the loyalty of the restorer of Charles II. During the Dutch war, Monk was again employed in the naval service, and in 1666 defeated the Dutch fleet commanded by his former antagonist, Van Tromp, and admiral De Ruyter. He died January 3, 1670, and was buried in Westminster-abbey. He was married to a woman in low life, who maintained a complete ascendency over him.

Monkey (*simia*, Linn.). The monkey tribe forms by far the largest portion of the great order of *quadrumana*, and, in addition to hands on all the extremities, with long and flexible fingers and opposable thumbs, they generally possess also the following characteristics:—The incisor teeth are four in each jaw, and their molars resemble those of man: these are five in number on each side of each jaw in the monkeys of the old continent, and in one tribe of the new; the remainder of the American species have a sixth. The canines vary in size, from a powerful tusk to a trifling projection beyond their other teeth. The nails of all their fingers, as well as those of the thumbs, are invariably flat and expanded. The head is subject to great variations, in some approaching the human in form, and passing through every intermediate gradation, till it becomes as flat as that of the dog. But of all their organs there is none which exhibits so remarkable a discrepancy as the tail: this is wholly wanting in some; forms a mere rudiment in others; is short and tapering in a third group; moderately long and cylindrical in a fourth; in a fifth, extremely long, and covered with hair; whilst, again, in another group, it is long, denuded of hair beneath and at tip, and prehensile. On these characters naturalists have made several classifications of them, each differing from the other as to the value of certain distinctions. The following is that given by Cuvier, in the last edition of his *Règne Animal*;—

SIMIÆ.

I. Subgenus.	Apes proper, or of the ancient continent.
1. Subdivision.	Orangs. *Simia*, Erxl. *Pithecus*, Geoff.
2. “	Gibbons. *Hilobates*, Ilig.
3. “	Guenons. Monkeys. *Cercopithecus*, Erxl.
4. “	*Semnopithecus*, F. Cuvier.
5. “	Macaques. *Macacus*.

6. Subdivision.	Magots. *Inuus*, F. Cuvier.
7. "	*Cynocephalus*, Cuvier.
8. "	Mandrils.
II. Subgenus.	Apes of the new continent.
1. Division.	Sapajoos.
1. Subdivision.	*Mycetes*, Ilig. Howling apes.
2. "	*Ateles*, Geoff.
3. "	*Brachyteles*, Spix.
4. "	*Sagothrix*, Geoff. *Gastrimargus*, Spix.
5. "	*Cebus*, Geoff.
2. Division.	Sakis.
1. Subdivision.	*Brachiurus*, Spix.
2. "	*Callithrix*, Geoff.
3. "	*Nocthora*, F. Cuvier.

But although thus diversified in their forms, they all possess some general characteristics. They are all mischievous, filthy, lascivious and thievish. They all employ their fore-feet as hands. When injured or offended, they use threatening gestures, chatter their teeth; and when pleased, appear to laugh. The dispositions of many of the species are extremely perverse, whilst others are so mild and tractable as to be readily tamed and taught a variety of tricks. They are all fond of hunting for vermin, both in their own fur and in that of their companions, possess a very delicate sense of feeling, and are able to leap with surprising agility from tree to tree. Most of the species are gregarious, associating in large troops; but each troop is invariably formed of the same species. The monkeys proper are the most lively and active, their prehensile tail answering the purpose of an additional hand. In many parts of India, monkeys were made objects of worship, and magnificent temples erected to their honor. When the Portuguese plundered the island of Ceylon, they found, in one of the temples dedicated to these animals, a small golden casket, containing the tooth of a monkey. This was held in such estimation by the natives, that they offered 700,000 ducats to redeem it. The viceroy, however, ordered it to be burnt. Some years afterwards, however, a Portuguese having obtained a similar tooth, pretended that he had recovered the old one, which so rejoiced the priests, that they purchased it from him for a sum exceeding 50,000 dollars. (See *Ape*, *Baboon*, *Orang Otang*.)

Monmouth; a town in Monmouth county, New Jersey, noted for the battle between the British troops under sir Henry Clinton, and the Americans under general Washington, June 28, 1778. Different divisions of the American army were commanded by Lee, Lafayette, Greene, Wayne, Stewart and Scott. The number of each army appears to have been about 11,000. The battle commenced late in the forenoon, and continued until dark. During the night, the British secretly left the field. The American army had eight officers and sixty-one privates killed. The British army lost about three hundred. The day was intensely warm, and many died from fatigue and thirst. Colonel Moncton, a highly valued British officer, was killed.

Monmouth, James, duke of, the son of Lucy Walters, one of the mistresses of Charles II, as is generally reported by that prince, although some circumstances render it highly probable that one of her former lovers was the father of the duke. He was born at Rotterdam, in 1649, and was always acknowledged by Charles, who had him carefully educated in France, as his natural son. After the restoration, he was sent home, and created earl of Orkney and duke of Monmouth, and received the garter. "He possessed," says Hume, "all the qualities which could engage the affections of the populace—a distinguished valor, an affable address, a thoughtless generosity, a graceful person. He rose still higher in the public favor by reason of the universal hatred to which the duke (of York), on account of his religion, was exposed. Monmouth's capacity was mean; his temper pliant; so that, notwithstanding his great popularity, he had never been dangerous, had he not implicitly resigned himself to the guidance of Shaftesbury, a man of such a restless temper, such subtle wit, and such abandoned principles. That daring politician had flattered Monmouth with the hopes of succeeding to the crown." This character explains his whole life. In 1679, he received the command against the Scotch covenanters, whom he defeated at the battle of Bothwell bridge, but was deprived of his command, and sent out of the kingdom, the same year, to quiet the fears of the duke of York. He soon after returned, and engaged in several conspiracies with Sidney, Shaftesbury, and other leaders, some of whom were desirous of establishing a republic; others merely wished to exclude the duke of York, while Monmouth entertained secret hopes of acquiring the crown. One of these plots, some of the parties to which were also concerned in the rye house plot, being discovered in 1683, Monmouth concealed himself for some time, but was afterwards pardoned, on expressing his penitence. No sooner had he obtained his pardon than he disavowed having made any concessions to the court, and was, in consequence, ordered by Charles to depart from the kingdom. On the accession of James II, Monmouth, finding himself pursued by the king's severity, was induced, contrary to his judgment and inclination, by the impatience of some of his partisans, to attempt an invasion of England. He arrived at Lime with hardly a hundred followers (June, 1685); but his numbers were soon increased, and he assumed the title of king, and asserted the legitimacy of his birth. His forces were defeated at Sedgemore Bridgewater, and the duke himself was made prisoner, having been found in the disguise of a peasant, lying at the bottom of a ditch, overcome with hunger, fatigue and anxiety. He refused to betray his accomplices, and conducted himself with much firmness on the scaffold, where his head was severed from his body, after four unsuccessful blows. The people, of whom he was still the favorite, believed that the person executed was not Monmouth, but one of his friends, who resembled him so nearly as to pass himself off for the duke, and suffer in his stead. It was probably this belief which has led some to conjecture that the famous Iron Mask was the duke of Monmouth.

Monnier, Pierre Charles Le; astronomer, member of the academies at Paris, London and Berlin, was born at Paris in 1715, and early displayed a decided inclination for astronomical studies. In his sixteenth year, he made observations on Saturn, and in his twentieth year communicated to the academy of sciences in Paris his *Nouvelle Figure de la Lune, avec la Description des Taches*. The academy admitted him into their number, and, in 1735, he went with Maupertuis to Lapland. In 1748, Monnier observed the annular eclipse of the sun, in Scotland, and was the first who measured the moon's diameter on the sun's disk. In 1750, Louis XV employed him to run a meridian line through the castle of Bellevue. Lalande, with whom he was afterwards on unfriendly terms, was his pupil, and always spoke of him with the highest esteem. Lemonnier was of an impetuous and capricious temper; and after his death several valuable works were found among his papers, which, in spite of all entreaties, he had obstinately refused to publish, and which he threatened to burn. Among them was a catalogue of fixed stars, the plan of which he had exhibited to the academy in 1741. He was indefatigable in his labors, and his whole life was devoted to science, which is indebted to him for many improvements. He was the first to determine the difference of refraction in summer and winter. He corrected the tables of the sun, and the catalogues of the stars, fixed with greater accuracy the inclination of the ecliptic, and ascertained the elevation of the pole at Paris. He introduced into France the transit-instrument constructed by Graham, and pointed out the irregularities in the motion of Saturn, produced by the attraction of Jupiter. He died in 1799. Of his numerous works, his *Histoire Céleste* and his *Théorie des Comètes* deserve to be particularly mentioned.

Monochord (from the Greek); an ancient instrument, or machine, so called, because it is furnished with only one string. Its use is to measure and adjust the ratios of the intervals, which it effects by the means of movable bridges, calculated to divide the chord at the pleasure of the speculatist. The *monochord* appears to have been in constant use with the ancients, as the only means of forming the ear to the accurate perception, and the voice to the true intonation, of those minute and difficult intervals which were then practised in melody.

Monochrome (Gr. *μονος*, single, and *χρωμα*, color), in ancient painting; a painting with one single color. This description of art is very ancient, and was known to the Etruscans. The first specimens of the art of painting were of one tint only, which was most commonly red, made either with cinnabar or minium. Instead of red, white paint was sometimes used. Quintilian says of Polygnotus, and Pliny of Zeuxis, that their performances of this kind were of the latter description. The antique tombs of the Tarquins, in the neighborhood of Corneto, offer several figures painted in white upon a dark ground. The first four plates in the first volume of the paintings of Herculaneum contain several monochromes upon marble. The most numerous monuments existing of this kind of painting are on terra cotta.

Monocrat has been used by a few writers to designate with one word an absolute monarch. They object to *autocrat*, as not sufficiently precise, since there might be also an autocratic body, that is, several or many persons who govern without any dependence on those who are governed.

Monodrama; a drama in which only one person plays.

Monogram (*μονος*, single, or only, and γραμμα), in archæology; a character or cipher composed of one, two, or more letters interwoven, being a sort of abbreviation of a name, anciently used as a seal, badge, arms, &c. They were used on coins, standards, walls and tapestry, seals and documents; first on coins, latest on documents, in which they were employed not only by princes and ecclesiastical dignities, but also by magistrates and notaries. Their use particularly as arms is ancient, as appears from Plutarch, and from some Greek medals of the time of Philip of Macedon, and Alexander, his son. The Roman *labarum* bore the monogram of Jesus Christ, which consisted of two letters, an P placed perpendicularly through the middle of a X, as we find it on many medals of the age of Constantine, these being the two first letters of the word XPIΣTOΣ. Under the Eastern empire, it is usual to find MIK, which form the monogram of Mary, Jesus, Constantine. The use of monograms was exceedingly common upon Greek coins; and many antiquarians have bestowed much time and attention in the effort to decipher them—a useless labor, since a great number of these monograms were, without doubt, of a conventional nature, and understood only by a few, even in the times at which the coins were current. After the time of Charlemagne, who made much use of them, and improved their form, monograms became very common in all the countries which had belonged to the Frankish empire, but after the twelfth century, gradually went out of use. The use of them remained longest in Germany, where it was formally abolished by the diet of Worms, in 1495. The knowledge of monograms of this public kind is of great importance for the illustration of the monuments and documents of the middle ages, and therefore forms a particular branch of diplomatics. The term was subsequently applied to all sorts of ciphers and signs, with which artists, particularly painters and engravers, were accustomed to designate their works. These have often been counterfeited. The ancients called every outline, every simple sketch, a *monogram*. Montfaucon, in his *Paléographie Grecque*, has given a very extensive catalogue of monograms taken from medals of various kinds. John Fr. Christ's collection of figures of monograms, accompanied by explanations,—*Anzeige und Auslegung der Monogrammatum* (Leipsic, 1747),—is valuable; also Brouillot's celebrated *Dict. des Monogrammes*, completed and corrected, in his *Table générale des Monogr., Chiffres*, &c. (Munich, 1820).

Monograph (μονος, only, single, γραφειν); a treatise on a single subject in literature or science; thus we say, a *monograph* on violets, a *monograph* on Egyptian mummies. The advantage of a treatise of this nature is, that it allows more minuteness of detail in reference to all the properties and relations of the subject of the monograph. Papers in the memoirs or transactions of literary and scientific societies, and in periodical journals, are often monographs, and have contributed much to the progress of modern science.

Monolithic (from μονος, single, and λιθος, stone); consisting of a single stone. According to Herodotus, there was a monolithic sanctuary attached to a temple at Sais, dedicated to Minerva, 21 cubits long, 14 wide, and 8 high, which was brought from Elephantine. The carriage of it employed 2000 men three years. Some striking specimens of monolithic temples are still found in Egypt, and, like the monolithic obelisks, bear testimony to the wonderful application of mechanical power among the ancient Egyptians. (See *Obelisks*.)

Monologue (μονος, single, λογος, discourse); in distinction from *dialogue* (q. v.), in the drama; the same as *soliloquy*. (See *Soliloquy*.)

Monomany (from μονος and μανια); the name given, by some physicians, to that form of mania, in which the mind of the patient is absorbed by one idea; for instance, if the patient believes that he is God, or Christ, an emperor, &c. (See *Mental Derangement*.)

Monongahela; a river which rises from the Laurel mountains, in Virginia, runs north into Pennsylvania, and unites with the Alleghany, at Pittsburg, to form the Ohio. It is navigable for batteaux and barges 32 miles, to Brownsville, and still further for lighter boats. Its length is about 300 miles.

Monophysites; the members of the party who, according to the language adopted in the fifth century, maintain that there is but one nature in Christ, that is, that the divine and human natures were so united as to form but one *nature*, yet without any change, confusion or mixture of the two natures. They were condemned as heretics, at the council of Chalcedon, in 451, which maintained that in Christ two distinct natures were united in one *person*, and that without any change, mixture or confusion. This distinction without a difference gave rise to a violent dispute. The Asiatic and Egyptian clergy were inclined to the Monophysites, and were unanimous in maintaining the unity of nature as well as of person in Jesus, while the Western contended for the decree of the council. The edict called *Henoticon*, issued by the emperor Zeno, in 482, was not able to quiet the combatants, and, after long and often bloody contests, the orthodox church, by its sentences of excommunication, occasioned a formal secession on the part of the Monophysites. This separation took place in the first half of the sixth century, when the protection which the Monophysites had hitherto received at times from the court at Constantinople, necessarily ceased from the close union of the emperor Justinian with the Roman church. Neither did they remain united among themselves. In 483, the Acephali (q. v.) had already seceded, and formed the real strength of Monophysitism. In 519, new controversies arose among them respecting the question whether the body of Christ is corruptible or not. The Severites, adherents of a deposed patriarch of Antioch, Severus, who belonged to the Acephali, answered in the affirmative; the Julianists, or Gajanites, adherents of the bishops Julianus, or Gajanus, in the negative. The former were, therefore, called *Phthartolatrians* (*Corrupticolæ*, servants of corruptibility); the latter, *Aphthartodocetæ* (teachers of incorruptibility), or *Phantasiasts*, who again divided respecting the question whether the body of Christ was created, and formed the parties of *Actistetæ*, those who held it increate, and the *Ctistolatrians*, who believed it created. The Severites, also called, from one of their bishops, *Theodosians*, acquired the superiority, and pronounced excommunications against the *Agnoëtæ*, who also arose among them (so called, because they denied the omniscience of Christ as a man). About 560, a Monophysite, Askusnages, and after him Philoponus, the greatest Christian philosopher of that century, conceived the idea of styling the three persons of the Deity three Gods. These tritheists and their adherents, even in the eyes of the Monophysites, were the rankest heretics, and were the occasion of many Monophysites turning Catholics. In Egypt, Syria and Mesopotamia, the Monophysite congregations, however, remained the strongest, had patriarchs at Alexandria and Antioch, existing, without interruption, by the side of the imperial or orthodox patriarchs; and, after the Syrian, Jacob Baradæus, who died 588, had established their religious constitution, formed the independent churches of the Jacobites and Armenians (q. v.), which separated from the Greeks as well as the Romans, and have, for that reason, been able to maintain themselves since the seventh century, even under the dominion of the Mohammedans. Excepting their peculiar doctrine of one nature in Christ, they coincide, in the main points of belief, with the Greek church; their worship also resembles the Greek, rather than the Roman, but has, from their national character and their superstition, received variations, which are most striking in the religious constitution of the Egyptian Jacobites. These *Copts* are in communion with the Syrian Jacobites, but have their own patriarch at Cairo, the patriarch of Alexandria, who has ten bishoprics under him. The Bible and liturgical books they possess in the old Coptic language, which is the same as the Egyptian current under the Ptolemies, at the time of the dominion of the Greeks, and has, therefore, some similarity with the Greek, but is now a dead language. They baptize their children always in the church, and never till they are forty days old, and frequently not till they are seven years of age; but immediately after baptism, they receive the wine of the eucharist. The Lord's supper they celebrate only in the great fasts, use, in the celebration, leavened bread, which is broken, and taste the wine with spoons. According to a custom that had its origin in times of persecution, they attend divine worship in the night, between Saturday and Sunday. It consists merely of service at the altar, of singing, prayer, and reading by the priests, who are, moreover, extremely ignorant, and cannot preach. The patriarch preaches but once a year. Relics, poorly executed, images in their churches, the worship of saints, &c., they have in common with the Greeks. Circumcision is customary only with the Copts in Upper Egypt. In their thinly-peopled convents, monks reside with women and children. A fourth Monophysite church is the Abyssinian, which receives its spiritual head from the Copts. (See *Abyssinia.*) Connected with the Monophysite controversy was the question started in the beginning of the seventh century, whether, in Christ, the united divine and human nature had but one, or two wills. This gave rise to a dispute, which the emperor Constans tried in vain to appease, by his edict, called *Typus*. The decision of the Trullan council, at Constantinople, in 680, that there were two wills in Christ, because he had two natures, made the Monothelites (advocates of the doctrine of one will) heretics, but could not prevent the formation, from their remains, of the sect of the Maronites. (q. v.)

Monopoly is an exclusive right, secured to one or more persons, to carry on some branch of trade or manufacture, in contradistinction to a freedom of trade or manufacture enjoyed by all the world, or by all the subjects of a particular country. Thus the East India trade is a monopoly in England, as far as it is confined, by law, to the East India company, though foreigners are allowed to trade to the British East Indies; but the West India trade, as far as it is open to all British subjects, is not a monopoly, though foreigners may be (as they, indeed, heretofore have been) excluded from it. The most frequent monopolies, formerly granted in Europe, were the right of trading to certain foreign countries, the right of importing or exporting certain articles, and that of exercising particular arts or trades, in certain towns or boroughs. These species of monopoly are now generally understood to be injurious. They still subsist, however, to a very considerable extent in Europe, but they have never been introduced into the U. States. There is, however, one species of monopoly sanctioned by the laws, not only of the U. States, but of all countries that have made any advances in the arts, namely the exclusive right of an invention or improvement for a limited number of years. The exclusive right of an author to the publication of his own work, is hardly a monopoly, but rather a right of property, resting upon the same principle as the right to lands or chattels. The law, therefore, by giving an author the exclusive right to the publication of his own work, for a limited number of years, makes no grant; it is only allowing him what is his own, for a limited time. But the exclusive right to the use of an invention or improvement, is a monopoly, since it deprives others, for that period, of the chance of the advantage of making the same improvement, discovery or invention themselves. It is taking away a right which they before had. The reason for this is, the encouragement of inventions and improvements, in the policy of which all the world concur. This is the only kind of monopoly recognised in the U. States, and the only one generally acknowledged, in Europe, to be useful and expedient.

Monopteral Temples. (See *Architecture*, vol. i, p. 341.)

APPENDIX.

Louis XII, king of France from 1498 to 1515, called by his subjects *le père du peuple*, was born in 1462. Before his accession to the throne, which took place after the death of Charles VIII, he was duke of Orleans, and first prince of the blood. The lessons of his German mother, Mary of Cleves, and the misfortunes which he underwent at a later period, corrected the faults of his education, which had been purposely neglected, in compliance with the will of Louis XI. (q. v.) On ascending the throne, he pardoned the wrongs which he had suffered before his accession. "The king of France," said he, "must not revenge the injuries done to the duke of Orleans." He showed himself grateful toward his friends. The ambitious Georges d'Amboise, his minister, archbishop of Rouen and cardinal legate, enjoyed his full confidence. After the death of this minister, in 1510, Louis took the reins himself. He reëstablished discipline in the army, and brought the turbulent students of Paris to order—a task which was not without difficulty, on account of their great number, and the privileges which they enjoyed. He much improved the administration of justice, lessened the taxes, and would never consent to increase them, though he was engaged in many wars. The expense of these he supplied by making a number of offices venal, and selling some crown estates. He united the duchy of Brittany for ever with the crown, by marrying, in 1499, the widow of Charles VIII, the beautiful Anne, duchess of Brittany, the object of his love even before his separation from the excellent, but extremely plain Jeanne, daughter of Louis XI, whom he had been forced to marry, and who had borne him no children. In order to enforce the rights which he inherited from his grandmother, Valentina Visconti, to the duchy of Milan, against Louis Sforza, called *Moro* (see *Sforza*), he sent, in 1499, an army over the Alps, which conquered the duchy of Milan within twelve days; after which Genoa also surrendered to him. In vain did Louis Moro attempt to maintain himself by the assistance of the Swiss; he was taken prisoner, in 1500, at Novara, and died, in 1510, in confinement at Loches in France. In 1500, Louis XII concluded a treaty with Ferdinand the Catholic, by which the kingdom of Naples was divided between them. King Frederic of Naples proceeded to France, where Louis gave him a considerable annuity. But Ferdinand possessed himself of the whole kingdom of Naples, and retained it by the treaty of 1505. Louis had promised to marry his daughter Claude to the grandson of the German emperor, Charles of Luxemburg, afterwards Charles V (q. v.), and to give her Brittany, Burgundy and Milan as a dowry. But the estates assembled in 1506 at Tours, begged on their knees the *father of his people*, as they called him, to marry his daughter to Francis, count of Angoulême, of the family of Valois. Louis consented; the estates declared the first contract of marriage void, and contrary to the fundamental laws of the realm, and Francis married Claude. Louis now devoted himself particularly to the education of this prince, who was to succeed him (see *Francis I*), but at first with so little success, that on one occasion he sorrowfully exclaimed, "*Nous travaillons en vain; ce gros garçon gâtera tout.* The league of Cambray (see *League*), established by pope Julius II against Venice, in 1508, involved France in a new war. Louis now commanded the army in person, and was victorious over the Venetians, at

Agnadello, in 1509, where he fought with great bravery. Julius II, however, fearing the power of France in Italy, concluded the holy league (see *League*) with Venice, Switzerland, Spain and England, against Louis XII, in 1510. In vain did the king, in conjunction with the emperor Maximilian, assemble, in 1511, a council at Pisa, in order to reform the church, in its head and members, and to depose Julius II; the pope laid an interdict on France, in 1512, and declared Louis XII to have forfeited his crown. The French armies could not maintain themselves after the death of their general, Gaston de Foix (q. v.); they were beaten by the Swiss, at Novara, in 1513, and retreated over the Alps; after which Maximilian, son of Louis Moro, took possession of Milan, and Genoa made herself independent of France. The Swiss, at the same time, penetrated into France as far as Dijon, and Henry VIII (q. v.) of England defeated the French, in 1513, at Guinegate (*Journée des Éspérons*, because the French made more use of their spurs in flight than of their swords in fight). Ferdinand the Catholic, also, in 1512, had taken Upper Navarre, which, until then, belonged, together with Lower Navarre, in France, to the house of Albret. Louis XII now renounced the provinces on the other side of the Alps and the Pyrenees, became reconciled with Leo X, the successor of Julius II, and concluded, in 1514, a general peace with Henry VIII, whose sister Mary he married, after the death of Anne, after which he united his second daughter, Renée, to the arch-duke Charles (Charles V). From love to his beautiful wife (only 16 years old), Louis (then 53 years of age) changed his whole mode of life, to the injury of his health, and thus accelerated his death. He died Jan. 1, 1515.—Louis XII possessed many of the qualities of a good ruler. He was open, honest, economical, just, kind-hearted and magnanimous; he was a friend of science, and attracted learned men to his country, particularly from Italy; and France owes to him its first scientific collections. He loved to read Cicero's *De Officiis*, *De Senectute*, and *De Amicitia*. Trajan was his model. France enjoyed, under him, a degree of prosperity and security which it had never possessed before. In regard to the foreign relations of the country, Louis had not sufficient talent to oppose the crafty Julius II, Ferdinand the Catholic, and cardinal Wolsey. His generals, Trivulce, De la Tremouille, Gaston de Foix (nephew of Louis XII), Bayard and others, maintained, even in misfortune, the glory of the French arms. —See P. L. Roederer's *Louis XII et François I, ou Mémoires pour servir à une nouvelle Histoire du Regne de Louis XII et de François I* (Paris, 1825, 2 vols.).

Louis Bonaparte, count of St. Leu, fourth son of Charles Bonaparte, was born at Ajaccio, Sept. 2, 1778. Those who believe that the extinction of feudal principles must necessarily take place in Europe, and that the principles of the French revolution (though at first vaguely understood, and often pervertedly applied) must make a new era in the constitution of Europe, will consider it as one of the most important points of investigation, in Napoleon's life, how far he remained merely a Frenchman, sacrificing other nations to elevate his own, and how far he may be considered as having acted with a view to the interests of Europe in general, which his station, as dictator of Europe, called on him to cherish. For the investigation of this point, the life of Louis Bonaparte will have a peculiar interest. Louis Bonaparte went, at an early age, to France, chose the military career, and was educated at the military school at Chalons. In his *Réponse à Sir Walter Scott*, he speaks with great affection of the paternal care which Napoleon took of him in his youth, when he lived with him in France. Louis accompanied his brother to Italy and Egypt, as aid-de-camp. From Egypt he returned with despatches to the directory, March 14, 1799. Soon after the 18th of Brumaire, Napoleon sent him to Berlin, where he remained for a year. He was afterwards appointed general of brigade, and, in 1802, married the step-daughter of Napoleon, Hortensia Beauharnais—a match which proved unhappy. When Napoleon assumed the imperial dignity, he made his brother Louis constable, and, in 1805, governor-general of Piedmont. But, on account of his health, Louis soon left Turin. Schimmelpennink, the grand pensionary of Batavia, wishing to resign his office, on account of his blindness, Napoleon improved the opportunity to make his brother Louis king of Holland (June 6, 1806). Louis refused to accept the crown; he alleged his ill health and the damp atmosphere of the country; but Napoleon told him, "*Qu'il valait mieux mourir roi, que de vivre prince.*" Other reasons determined Louis to accept the crown, though he could be, in fact, nothing more than a French prince. The previous negotiations with respect to this subject were kept an entire secret from him. After his accession, he desired to identify himself with his people; but, in his situation, this was impossible; and therefore his reign, although he respected the public opinion of the nation, and earnestly endeavored to improve every branch of the administration, had, on the whole, neither freedom nor dignity. He often took steps which offended the feelings of the nation; for instance, his attempted levy of orphans for the military service. Other plans of his, such as the removal of the seat of government from the Hague to Utrecht, and subsequently to Amsterdam, were not merely without advantage, but detrimental. But he made a noble, though vain resistance, to what was termed the *haute politique* of France, in as far as Holland was concerned. On one occasion, he generously declared, "*Qu'en acceptant le trône de Hollande, il s'était fait Hollandais.*" The supplies demanded by France on the one side, and the strict measures against British commerce, which he was compelled to adopt, on the other, rendered the restoration of the prosperity of Holland impossible. Louis was, however, successful in preserving Holland from a general bankruptcy. Though the foreign relations of the country demanded unceasing attention, the completion of a new criminal and civil code was accomplished, and a uniform system of weights and measures, on the model of the French, was adopted. In his personal character, the king displayed moderation, modesty, active humanity (for example, on occasion of the explosion of powder in Leyden, and of the inundations in the winter of 1808), and placability in regard to the affronts which he received. But as he would not enforce the continental system in Holland with severity, and defended his people against the ever-increasing encroachments of his brother, a dispute ensued between them; Louis was ordered to Paris, where it was with the greatest sacrifices that he effected a prolongation of the existence of the Dutch state. This, however, was of short duration. Having been advised that French troops were on their way, under Oudinot, to occupy Amsterdam and the sea-board, he abdicated the sovereignty, July 1, 1810, created his absent wife, agreeably to the constitution, regent, in the name of his minor son (whom the emperor, without the knowledge of the father, had appointed, March 3, 1809, grand-duke of Berg and Cleves, reserving to himself the guardianship of him), left Holland, accompanied by two friends, and, under the name of *count of St. Leu*, repaired, by way of Teplitz, to Gratz, where he devoted himself to literature, and wrote several works. The struggle of interests which necessarily ensued between Napoleon and his brothers, whom he recognised as kings, is strikingly exhibited in the letters written by Napoleon's own hand to Louis, and preserved in Bourrienne's Memoirs. They show that it was nearly impossible that the interest of the emperor of France should agree with that of the king of Holland. Louis had not enriched himself in Holland. The income of the civil list, for the month of June, he returned to his son. And when Holland was incorporated with France, he forbade the institution of any appanage for himself, the queen and his children; he resigned to his wife his estate at St. Leu, near Paris, his palace in Paris, and several houses in Holland. In October, 1817, he ceded St. Leu to the duke of Leuchtenberg, Eugene Beauharnais. In the years 1813 and 1814, Louis repeatedly offered the emperor his services, with a view, however, to the replacing of Holland under a French dynasty, which, however, Napoleon decidedly refused. After the reinstatement of the house of Orange, he thought himself freed from all obligations to Holland, and went to Paris, Jan. 1, 1814. His meeting with Napoleon, concerted by the empress Maria Louisa, was cold. He earnestly exhorted his brother to peace. March 30, he accompanied the empress to Blois. In April, he retired to Lausanne, and thence, in November, 1814, to Rome. In 1815, he remained in Rome. Having separated from his wife, he demanded that she should give up to him his son (formerly grand-duke of Berg, under Napoleon's guardianship), with whose education he has occupied himself at Rome. The letter to M. Bonald, on the education of his son, bears favorable testimony to the qualities of his mind and his heart. His romance *Marie, ou les Peines d'Amour, ou les Hollandaises* (3 vols., 1814), contains a picture of Dutch manners. He has given a detailed history of the circumstances of himself and his family, especially of his administration of Holland, in his *Documens historiques et Réflexions sur le Gouvernement de la Hollande, par Louis Bonaparte, Ex-Roi de Hollande* (3 vols., London, 1821), which is entirely his own, even to the preface. Against the participation ascribed to him, in a work on the British parliament (*Histoire du Parlement d'Angleterre*, with notes, pretended to be by Napoleon), Louis has protested, in the Paris *Constitutionnel.* His *Réponse à Sir Walter Scott* appeared in 1829. In this work, he acknowledges himself as author of the following works only: 1. and 2., *Marie*, and the *Documens historiques* already mentioned; 3. *Mémoire sur la Versification, contenant un Recueil d'Odes publiées précédemment en Brochure et des Essais de Vers sans Rime;* 4. *Essai sur la Versification* (2 vols., in 8vo.), *contenant l'Opera de Ruth, la Tragédie de Lucrèce; ces deux Pièces écrites en Vers sans Rime, et la Comédie de l'Avare de Molière reduite en Vers de la même Espèce;* 5. *Nouveau Recueil de Poésies publiées à Florence l'Année dernière, et contenant la Suite du Lutrin Poëme, en 5 Chants,* &c.; 6. *Réponse à Sir Walter Scott.*

Lucien Bonaparte, third son of Charles Bonaparte, since 1814 prince of Canino (an estate in the papal territory, which he purchased in 1808, and which the pope afterwards made a principality), was born at Ajaccio, in 1772. The effective assistance which he rendered to Napoleon on some of the most important occasions in the earlier period of his career, and the misunderstanding which, at a later period, took place between these two brothers, render Lucien an object of much interest. We cannot enter minutely into these particulars, which will form subjects of study for the future historian, but must confine ourselves to a short biographical notice. Lucien Bonaparte received his education at the college of Autun, in Burgundy. At the commencement of the revolution, he embraced with enthusiasm the party of the people. He became engaged to mademoiselle Boyer, whose brother was a land-owner and innkeeper at St. Maximin, in the department of the Var. The marriage took place in 1795. In the same year, he was appointed to a place in the commissariat of war. In March, 1797, he was chosen deputy of the department of Liamone to the council of the five hundred. July 18, 1797, he appeared, for the first time, in the tribune. He opposed the regulation for shutting up the shops on the 10th day of each *décade*, as arbitrary; attacked with energy those who had wasted the public money; and, on the anniversary of the establishment of the republic, exhorted his colleagues to bind themselves by an oath to die for the constitution of the year III; though he soon after coöperated in overthrowing its supporters, Merlin, La Réveillère, and Treilhard. His influence soon increased, and he formed a party, which afterwards promoted the views of his brother. Not long before the memorable 18th Brumaire, he became president of the council, and prepared the proceedings of that day. Being unable to appease the agitation caused by general Bonaparte's entrance into the assembly, he abandoned his seat, laid aside the badges of his dignity, mounted his horse, rode at full speed through the ranks of assembled troops, and exhorted them to save their general, whose life was in great danger. (See *Napoleon*, and *Sièyes.*) After the consular government was established, Lucien was made minister of the interior. While in this station, in 1799, he encouraged, with great zeal, the arts, sciences, and public instruction. He established a second *prytaneum* at St. Cyr, and organized the prefectures. In October, 1800, he went, as ambassador, to Madrid, where, by his address and captivating demeanor, he soon gained the entire confidence of king Charles IV, of the queen, and the prince of peace, and supplanted the British influence at the court of Madrid. He was also active in the creation of the kingdom of Etruria, and in the cession of Parma to France. September 29, 1801, Lucien, with the prince of peace, signed, at Badajoz, the treaty of peace between Spain and Portugal; and, by virtue of a secret preliminary treaty, the prince-regent paid 30 millions of francs, which were equally divided between Spain and France. On his return to Paris, he became a tribune (May 9, 1802). He advocated the plan of the establishment of the legion of honor, of which he was appointed grand-officer. February 3, 1803, the institute chose him member of the class of political and moral sciences, and shortly after he received the senatorship of Treves; after which he took possession of the donations made to the legion of honor in the departments of the Rhine, and in Belgium. Lucien, whose first wife died in 1802, having married, at the end of the year 1803, the beautiful widow of the banker Joubertou, against the will of Napoleon, withdrew to Italy, in 1804, and purchased the villa de' Nemori, in the neighborhood of Rome, where he devoted himself to his family, and to the arts and sciences. Whether this marriage alone, or, as has been asserted by many, his disapprobation of Napoleon's policy, was the cause of the misunderstanding between the two brothers, we have not the means of determining. At a meeting of the two brothers at Mantua, in November, 1807, the emperor proposed to him the marriage of Lucien's eldest daughter, then 12 years of age, with the prince of Asturia; but the proposal was rejected. Mademoiselle Tascher (who afterwards became the wife of the duke of Arenberg, but is now divorced) was next offered to prince Ferdinand; but the prince refused her, because he wished to connect himself with Napoleon's family only. By this opposition Lucien excited the anger of the emperor, and became desirous to repair to the U. States, in order to remain undisturbed. He applied to Mr. Hill, the English ambassador at the Sardinian court, for passports from the English government, and, having received satisfactory assurances from him, embarked, August 5, 1810, at Cività Vecchia, with his family, a retinue of 35 persons, and his personal property. A storm compelled him to put into Cagliari; but the English agent at that place denied him passports, and he was not even permitted to land. On leaving the harbor, his vessel was seized, and Mr. Adair, who was then proceeding to Constantinople as British ambassador, caused him, at Mr. Hill's suggestion, to be conveyed to Malta, where Lucien assigned to the London cabinet, as the sole motive for his departure to America, the wish to live there in safety, as a private individual. He was not, however, permitted to repair thither, but was taken to England, in December of the same year, where he was treated with respect. Lord Powis, at first, gave up to him his seat of Stonehouse, at Ludlow; he then removed to a seat which he had purchased in Worcester, where he remained under *surveillance*, having an English colonel for a companion. Some time after, the question was moved in parliament whether Lucien Bonaparte, as he had actually believed that he had obtained English passports, was to be considered as a prisoner of war. After protracted debates, he was declared a prisoner of war, on the ground that he had not renounced the dignity of French senator; but no alteration was made in his treatment. Napoleon's downfall, in 1814, restored him to liberty, and he returned to Rome. While in London, he published his epic poem, *Charlemagne, ou l'Église délivrée* (in 24 cantos, dedicated to the pope). Napoleon's opinion of this poem may be found in Las Cases' *Mémorial*. When Napoleon had regained possession of the French throne, after his return from Elba, Lucien, at the suggestion of the pope, proceeded to meet the emperor, in order to obtain an order that Murat, who then occupied Rome, should evacuate the States of the Church (with the exception of a military road through the Mark of Ancona). This order he obtained at an interview with Napoleon. All the other requests which he made in favor of the pope were also granted, after which he remained in Paris. Lucien then had to enter the chamber of peers, where he sat, not among the princes, but among the other peers. The second class of the national institute, of which he was a member, sent a deputation to welcome him. In this deputation was Suard, who, in February, 1815, had made the proposal, received with dissatisfaction by all the members, to exclude Lucien from their body, because he bore the name of Bonaparte. The second restoration of Louis XVIII compelled him to return to Rome; but the Austrian general, count Bubna, caused him to be confined in the citadel of Turin, where he was treated with respect. The allies restored him his freedom, in September, 1815, on his declaration, *Qu'il s'était constamment opposé aux vues ambitieuses de son frère et qu'en dernier lieu il ne s'était joint à lui qu'afin de le ramener à des sentimens de modération*, and on the mediation of the pope, though the papal see was obliged to pledge itself that neither he nor any one of his family should leave the States of the Church. He has since lived in Rome, or on his estates in the neighborhood, among which the Ruffinella has become the seat of the most refined taste. In 1817, Lucien solicited passports, for himself and one of his sons, to the U. States, which were, however, refused by the ministers of the allied powers.—His son, Charles Bonaparte, was finally permitted to go to the U. States, and lived there for some time with his uncle Joseph (q. v.), whose eldest daughter he married. He published, whilst in the U. States, his splendid work on American Ornithology, and was elected member of the philosophical society at Philadelphia, and that of natural history. He has since returned to Europe. His title is *prince of Musignano*.—Distinguished as were Lucien's talents as an orator, his poetical powers were far less splendid. In 1819, he published at Rome a second heroic poem, in 12 cantos—*La Cyrnéide, ou la Corse sauvée*—in which he celebrates the expulsion of the Saracens from Corsica (anciently Cyrnos). By the ordinance of March 21, 1816, Lucien was excluded from the list of the members of the French academy. The *Mémoires sur la Vie privée, politique et littéraire de Lucien Bonaparte, Prince de Canino, rédigés sur sa Correspondance et sur des Pièces authentiques et inédites* (London, 1818, and Paris, 1819, 2 vols.), of which Alfonse de Beauchamp is mentioned by some as the author, was first printed in London, in 1815, but immediately suppressed. It was published, for the second time in London, by Colburn, in 1819, and, on the whole, contains valuable contributions to the history of the day. Lucien has made important excavations on his estate near Montalto, in the ancient Etruria (see the article *Etruria*), and has published an account of the collection of antiquities obtained, under the title *Muséum Étrusque de Lucien Bonaparte*, *fouillés de* 1828—1829 (with 40 plates of the inscriptions), and has also begun a splendid work, in folio, which will contain a hundred colored plates, representing the paintings on the excavated Etruscan vases, &c. The latter appears in monthly numbers, of five plates each, sold by Piatti in Florence. According to the latest accounts, his family had arrived in England, where he was expected soon to follow them.

Madison, James; a bishop of the Protestant Episcopal church in Virginia, was born August 27, 1749, near Port Republic, in the county of Rockingham, Virginia. His father was for a long time clerk of the extensive district known as West Augusta, of which Rockingham county formed a part. At an early age, the son was sent to an academy in Maryland, where he remained for several years, and received instruction in the classics. He then entered the college of William and Mary, where he was matriculated in 1768, and from which he obtained several honorable testimonials of his proficiency. One was the gold medal assigned by lord Botetourt for the encouragement of classical learning, which was awarded to him in 1772. He studied law under Mr. Wythe, and was admitted to the bar; but he never relished the profession, so that, after one successful effort in an admiralty case, he abandoned it, and devoted himself to the church. In 1773, he was chosen professor of mathematics in William and Mary college, and, in 1777, was made president of that institution, being then but 28 years of age. The statutes of the college required that the president should be 30, but the rule was suspended in his favor. In the same year, he visited England, in order to qualify himself still more for the duties of his station. He continued abroad, principally in London, until the latter part of 1778, and during his absence enjoyed the advantage of the aid and instruction of Cavallo in natural philosophy, and of other distinguished men in various branches of science. On his return home, he took charge of the college, and commenced that long career of usefulness, which entitles him to be considered as one of the greatest benefactors of Virginia. Throughout the whole revolutionary war, he was unceasing in his exertions to sustain the college; and it was only for a short period during the struggle, that its exercises were intermitted, viz. the autumn preceding and the winter and spring succeeding the siege of Yorktown. Until 1784, he was not only president, but professor of mathematics and natural philosophy. In that year, he gave up the mathematical department, and became professor of natural and moral philosophy, of the laws of nature and nations, &c., and continued in this office until the period of his death. In 1788, he was chosen bishop of the Protestant Episcopal church, and in the following year again went to England for the purpose of consecration. Whilst there, he formed an extensive acquaintance amongst the most distinguished literati, with many of whom he kept up an uninterrupted correspondence during the subsequent part of his life. At the end of eight months, he returned to the U. States. Various universities and literary societies subsequently conferred their honors on him. Under the care of bishop Madison, the college of William and Mary advanced steadily in reputation, and became the *alma mater* of many eminent men. He was indefatigable in his lectures, and, when in good health, is known to have been engaged in the lecture-room from four to six hours every day throughout each week. He first introduced a course of systematic lectures on political economy into the college. In the department of natural philosophy, he excelled; his enthusiasm there throwing a peculiar charm over his lectures. As a bishop, also, he was ardent in the performance of his duties, and his sermons caused him to be ranked among the first pulpit orators of this country. This excellent man died March 6, 1812, in his 63d year, after a painful illness of many months. His remains were deposited, by vote of the faculty of William and Mary's college, in the chapel hall, and a marble monument was erected over them. In person, bishop Madison was tall and slender, of a delicate constitution; and nothing but the most temperate and abstemious habits could have prolonged his life to threescore years. In disposition, he was mild and benevolent, and few men have equally deserved esteem for virtues social, domestic and personal. His manners were simple, but courteous and winning. He was a devoted friend to our revolution and to liberal principles of government. The eulogium which bishop Madison pronounced upon general Washington is one of the finest discourses called forth by the death of that illustrious man.

Methodist Episcopal Church in the U. States. The first Methodist society in the U. States was formed in New York, in 1766, by some Methodist emigrants from Ireland. Their numbers increased so rapidly that, in 1768, they erected a meeting-house. Several preachers were soon after sent out from England, and the first conference was held at Philadelphia, in 1773, under the superintendence of Thomas Rankin, who had been appointed, by Wesley, to the general oversight of the societies in this country. During the war, all the English preachers, except Mr. Asbury, returned home. At the close of the revolution (1784), the societies having been hitherto dependent on other churches for the administration of the ordinances, as their teachers were merely lay preachers, Wesley sent out doctor Coke with directions to consecrate Mr. Asbury superintendent or bishop of the American church, which was done at a conference held in Baltimore, in 1784: twelve of the preachers were, at the same time, ordained elders. The form of government is Episcopal; the title, the Methodist Episcopal church. Three orders of ministers are recognised—deacons, elders and bishops. "Any person who thinks himself moved by the Holy Ghost to preach the gospel, on application to his preacher, is licensed, if judged fit, to exhort; after exercising his talents as an exhorter for sufficient length of time, he is licensed as a local preacher by the local preachers' conference, and may be admitted as a travelling preacher by the annual conference. After travelling two years, he is ordained a deacon, and in two years more becomes an elder." The local preachers above-mentioned are persons occupied with some secular business, who preach on Sundays. The annual conferences are meetings composed of all the travelling preachers, in full connexion, or who are to be received into full connexion. There are at present nineteen. The general conference is composed of representatives from the annual conferences, and is held once in four years, and has power to make rules and regulations for the churches, with certain limitations. Each society is divided into classes of about 12 persons, under a leader, whose duty it is to see each person in his class at least once a week, to exhort, reprove, advise them. The band societies are composed of three or four true believers, who have confidence in each other, and must be all men or all women, all married or all unmarried. They meet at least once a week, to engage in religious exercises, and advise and exhort each other. The whole number of members (in 1831) is 513,114; preachers, 2010: the whole number of hearers who attend Methodist preaching in the U. States is about 1,000,000. The Methodists in this country are Wesleyans. A Methodist theological seminary has been opened at Middletown (Ct.), during the present year. (See the *Doctrines and Discipline of the Methodist Episcopal Church*, and the *Yearly Minutes of the Annual Conferences*.)

Mica, the name of a very familiar species in mineralogy, often improperly called *isinglass*, is possessed of the following properties: primitive form, an oblique rhombic prism of 60 and 120°; its ordinary forms are a regular six-sided prism, so short as to be called a *six-sided table*; a six-sided table in which the terminal edges are truncated, and an oblique six-sided pyramid, with alternate broader and narrower lateral planes; cleavage highly perfect; lustre pearly, often inclining to metallic; color various shades of gray, generally passing into green, brown, and black, also into white and red; streak white gray; transparent or translucent. It is less transparent in the direction of the axis than perpendicular to it, and presents different colors in these directions, for instance, oil-green in the first, and liver-brown in all the others; sectile; thin laminæ are elastic; hardness rather below that of calcareous spar; the acute edges of the laminæ, however, will sometimes scratch glass; specific gravity 2.949. Mica is not common in well defined crystals, but more often occurs massive, having a columnar or granular composition, the faces of composition being irregularly streaked and rough. Much diversity exists among the analyses which have been made of mica, from various localities, by different chemists, as will be seen from the annexed table.

Ingredients.	*Mica from Zinnwald.*	*From Siberia.*		*From St. Gothard.*	*From Kimito.*
Alumine	20.00	34.25	22.00	0.00	36.80
Silex	47.00	48.	40.25	19.50	46.36
Oxide of iron	15.50	4.50	8.75	26.50	4.53
———— titanium	0.00	0.00	13.00	25.40	0.00
———— manganese	1.75	a trace	2.00	25.25	0.00
Magnesia	0.00	0.50	0.00	0.00	a trace
Lime	0.00	0.00	1.75	0.00	0.00
Potash	14.50	8.75	7.25	0.00	9.22
Fluoric acid and water	0.00	0.00	3.24	0.00	1.81
	Klaprcth.	*Klaprcth.*	*Peschier.*	*Peschier.*	*Rose.*

Before the blow-pipe, several varieties first lose their transparency, and then melt into a scoria, white or colored, or even black; others are infusible; and they show, in general, as much difference in this respect as in their composition. Mica forms one of the constituent parts of various rocks, as granite, gneiss, mica-slate and porphyry. It sometimes occurs in masses of considerable dimensions, containing imbedded crystals of garnet, tourmaline and topaz. Remarkable varieties of mica are found in Siberia, particularly at a place called Witim, where it exists in plates one or two feet broad, and which are perfectly cleavable, and nearly or quite transparent, in thin laminæ. At Zinnwald, in Bohemia, it is found in very perfect crystals, possessing two axes of double refraction. It also occurs in the Horlberg in Bavaria, in Moravia, in Switzerland, at Mount St. Gothard, and at Mount Vesuvius. At the last mentioned locality it is found in the drusy cavities of the ejected specimens of lava, in crystals with one axis of double refraction, and often possessed of remarkable transparency. In the U. States, handsome varieties of mica have been discovered in numerous localities, among which may be mentioned the distinct prismatic crystals of Acworth, New Hampshire, implanted on feldspar, and shooting into quartz; the dark-green distinctly cleavable variety, forming a large vein at Monroe, New York; the rose-red rhomboidal crystals of Goshen, Mass.; and the emerald-green variety, in scales, from Brunswick, Maine. As a variety of mica, *lepidolite* requires to be mentioned. It has been treated by some authors as a distinct species, but without any sufficient reasons. It occurs in granular compositions, of a peach-blossom red color, sometimes passing into several pale shades of green. Its chemical constituents are, according to Wenz,

Alumine	33.61
Silex	49.06
Oxide Manganese	1.40
Magnesia	.41
Lithia	3.60
Potash	4.18
Fluoric acid	3.45
Water	4.18

and a trace of iron. Before the blow-pipe, upon charcoal, it intumesces, and fuses very easily into a transparent globule. It is found near Rozena in Moravia, and at Uto in Sweden, in primitive rocks. In the U. States, it occurs in Maine, at Paris, in large pieces of unusually fine colors, and frequently embracing crystals of red, green and blue tourmaline. It is cut into snuff-boxes and various ornaments. Perfectly cleavable varieties of brown and gray mica are used in Siberia, in Mexico and Peru, instead of window glass. It is particularly employed in the construction of lanterns, and where glass would be liable to crack from sudden changes of temperature; also on board ships of war, where its elasticity enables it to withstand the concussion produced by the discharge of artillery, which would be sufficient to shatter ordinary window glass. It is sometimes used for various optical purposes, and enters into the composition of the artificial avanturine.

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